

High-Impact Practices and First Destination Outcomes of Liberal Arts Graduates

by

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Abstract

The adult learning theories of andragogy, experiential learning, and self-directed learning were utilized as the framework for this study as these theories guide educators in their work with students to seek experiences that may enhance their opportunities beyond college in adulthood. By understanding adult learning theories, administrators in higher education institutions can better incorporate informal learning experiences that promote a commitment to lifelong learning among its graduates. The purpose of this study was to better understand how participation in informal learning experiences like high-impact practices (HIPs), connects to first destination outcomes (FDOs) of liberal arts graduates. This study further explored the quality of the HIP experience, specifically internships, study abroad, and undergraduate research and how this quality of participation may relate to FDOs for students in the liberal arts. Using a secondary dataset that included over 500 graduates within the liberal arts disciplines, from a large, public land grant university in the southeastern United States, the relationship between HIP participation and quality and FDOs was analyzed using multinomial logistic regression. Participation in internships showed statistical significance to the outcome of employment and participation in undergraduate research showed statistical significance to the outcome of further education. While not significant, participation in study abroad was positively correlated to both FDOs. Overall quality of experience in HIPs was not significantly related to FDOs, however individual items including interaction with faculty and peers, appropriately high expectations, effort required over an extended period of time, and receiving constructive feedback had positive relationships (some significant) with the FDOs. This study provides some insight into the influence of HIP participation and FDOs for liberal arts graduates. This research adds to the

existing literature and will better inform professional advisors and career specialists in helping guide students in choosing appropriate activities that further develop the skills needed to attain their career aspirations. Furthermore, faculty and administrators can work to develop meaningful experiences that not only benefit students in meeting their educational goals, but that also position institutions to recruit and retain students.

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List of Abbreviations

AAC&U	American Association of Colleges and Universities
AMACAD	American Academy of Arts and Sciences
CEES	Campus Engagement and Experience Survey
FDO	First Destination Outcome
FDS	First Destination Survey
HIPs	High Impact Practices
IES	The Institute of the International Education of Students
LA	Liberal Arts
LEAP	Liberal Education and America's Promise
NACE	National Association of Colleges and Employers
NSSE	National Survey of Student Engagement
QEP	Quality Enhancement Plan
SES	Socioeconomic Status
URE	Undergraduate Research Experience

Chapter 1

Introduction

College students consider higher education as an investment in their future and are largely interested in opportunities that prepare them for their chosen career (DiConti, 2004). Students value an educational experience that will translate into better employment prospects and prepare them for a lifelong career. The most common reasons students choose to attend college are to be successful, increase knowledge, make more money, and improve career opportunities (Balloo et al., 2017; Green & Hill, 2003; Kline & Duncan, 2018).

In the past decade, liberal arts programs have seen declining enrollment due to a push for students to pursue professional and preprofessional majors that are believed to provide better employment opportunities (Scheuer, 2015). Researchers have found that the narrative surrounding the liberal arts is a myth, and that students pursuing majors within liberal arts are finding success beyond college (Cameron et al., 2019). This success may be attributed to the fact that liberal arts-based programs are readily associated with developing students' transferrable skills necessary in the twenty-first century like critical thinking, communication, and problem solving (Lewis, 2018). A report by Humphreys and Kelly (2014) posited that employers want graduates that have both field specific knowledge and a broad range of skills. Therefore, liberal arts graduates have the skills employers are looking for, but students are struggling to articulate and market these skills to employers (Brooks, 2009; Stebleton et al., 2020).

Because students are typically underprepared to effectively market themselves to employers, career development is an integral part of the liberal arts. Brooks (2017) stated that career development not only helps students realize and articulate the skills they have gained in the classroom, but it provides opportunities for students to integrate their major into their lives.

The experiential learning approach referred to as high-impact practices (HIPs) like internships, study abroad and undergraduate research can offer out-of-classroom experiences that help facilitate this integration and offer an opportunity for students to practice their skills in live settings (Reiss, 2020). “High impact practices that promote experiential learning and develop competencies to facilitate job readiness upon graduation have become essential to the student experience” (Ortiz & MacDermott, 2018, p. 123). While participation in HIPs is widespread and have been shown to provide positive influence on student development (Schneider, 2008), this study adds to the literature by questioning the influence of participation in HIPs beyond undergraduate graduation for liberal arts students. This important research provides insight into experiential learning practices that facilitate career competencies and job readiness upon graduation. Furthermore, it can help leverage academic resources, both financial and personnel, to offer valuable opportunities to students.

Statement of the Problem

Preparing students for life after college has long been the goal of many institutions of higher education. For example, the mission of the institution used for this study lists their first responsibility as an institution to educate students and prepare them for life. There are many factors that contribute to student learning in the higher education setting, thus influencing first destination outcomes. Colleges and universities regularly assess student learning outcomes institutionally or at the course level, but often lack a systematic way to assess student learning in activities that take place beyond the classroom walls (Kuh, 2008). This is problematic because it is imperative that faculty and administrators not only understand how students are prepared through instruction for their career or graduate study, but also other factors outside of the classroom that help prepare students for post college success. Additionally, this research and

assessment is vital to liberal arts programs to assist in combating the myths associated with career outcomes and the liberal arts. In order to continue to attract bright students to the liberal arts, evidence is needed to demonstrate the value of the liberal arts in regard to educational practices and post-graduation outcomes.

HIPs such as internship, study abroad, and undergraduate research are practices that have been utilized at colleges and universities for many years (Finley & McNair, 2013). There are opportunities for additional research to better understand how these practices influence first destination outcomes, and how to construct these programs where they provide the most beneficial results for students (Miller et al., 2018). Specifically, research is needed in undergraduate liberal arts education to inform best practices for providing HIPs to students as liberal arts colleges and programs have been challenged in the past to find a balance between traditional liberal education and vocational-based training (Baker & Baldwin, 2015). Empirical evidence increases the power in the decision-making process for facilitators regarding HIP development and implementation, and for students in determining how best to engage in available HIPs.

Purpose of the Study

“One of the primary goals of higher education is to prepare students to become contributing members of society, in particular the workforce, upon graduation” (Miller et al., 2018, p. 489). There are numerous factors that contribute to the post-graduation success of college graduates, and institutions should focus assessment resources on out-of-classroom experiences (i.e., HIPs) that might contribute to valued outcomes (Kuh et al., 1994; Kuh, 2008; Kuh & O’Donnell, 2013; Finley & McNair, 2013). The purpose of this study was to better understand how participation in HIPs, connects to graduation outcomes of liberal arts students.

This study further sought to evaluate the quality of the HIPs, specifically internships, study abroad, and undergraduate research and how this quality of participation may relate to FDOs for students in the liberal arts.

Research Questions

This study was conducted to answer the following research questions:

1. What is the relationship between participation in high-impact practices (internship, study abroad, and undergraduate research) and first destination outcomes (full-time employment, enrollment in additional coursework, neither full-time employment or enrollment in additional coursework) for liberal arts students?
2. Is there a relationship between the self-reported quality of internship experience and the first destination outcomes for liberal arts students?
3. Is there a relationship between the self-reported quality of study abroad experience and the first destination outcomes for liberal arts students?
4. Is there a relationship between the self-reported quality of undergraduate research experience and the first destination outcomes for liberal arts students?

Significance of the Study

This research adds to the existing literature and will better inform professional advisors and career specialists in helping guide students in choosing appropriate activities that further develop the skills needed to attain their career aspirations. Furthermore, faculty and administrators can work to develop meaningful experiences that not only benefit students in meeting their educational goals, but that also position institutions to recruit and retain students. Because students place value on obtaining a degree to “find a place in the economy” (DiConti, 2004, p. 167), an understanding of activities that complement learning outcomes in the classroom

is critical to this goal. Demographic information was reported in the study, thus allowing an opportunity to provide a deeper understanding on how participation in high-impact practices may affect students from varying backgrounds. These demographic variables included, gender, race/ethnicity, traditional/nontraditional status, Pell eligibility, first generation status, residency, and program of study (categorized). Empirical evidence of the relevance for experiential learning is important to justify assigning financial and personnel resources to develop quality high-impact experiences that engage students to develop the skills needed to position them to achieve positive graduation outcomes.

Limitations of the Study

There were several limitations for this study. The study was conducted utilizing a sample from a large southeastern public research university. While this sample is only representative of one institution and therefore not ideal, Mertler (2019, p.192) states, “in most cases, the population identified for study is a realistic choice (i.e., an accessible population) and not an ideal one (i.e., a target population)”. Although this study utilized an accessible population, it may limit the generalization of results to the population.

The COVID-19 pandemic presented another limitation to this study. Students participating in some high-impact practices including study abroad and internships may have experienced abbreviated opportunities due to the closing of borders and corporate shut-downs in light of the pandemic (Hawley et al., 2021; Martel, 2020). Furthermore, internships and first destination outcomes were affected for students given the circumstances of COVID-19. Aucejo et al. (2020) indicated that around 40% of students included in their study lost a job, internship, or a job offer. Not all students in the dataset were impacted by COVID-19. Because this study utilized the fall 2019 and spring 2020 data collection periods, the fall 2019 graduates would not

have experienced HIP interruptions due to COVID-19 but may have been impacted during the six months post-graduation collection for FDOs.

A limitation in the research of HIPs in higher education includes students' self-selecting into educational experiences. Zilvinskis (2019) noted the difficulty in indicating any causality in HIP research due to the self-selection into these experiences. Furthermore, the question was raised whether "students have higher outcomes because of their participation in HIPs or [whether] students with higher outcomes also choose to participate in these experiences" (Zilvinskis, 2019, p. 705). Miller et al. (2018) also noted a limitation of self-selection based on the assumption that students may choose to participate in specific HIPs based on their intended outcome.

The data collected for this study was self-reported by students. In particular, the self-reported quality items are interpreted with caution. The quality of the experience was rated by the student and therefore was based on the students' perception of the experience. Other quality factors for these experiences can be explored in future research.

Lastly, the items that measured quality for the HIPs studied, consisted of only one question per quality factor. In comparison to single questions, the use of multiple items are expected to be more reliable and valid (Willits et al., 2016). In this study, Likert scale data was used to perform statistical analysis to measure relationships between variables. Some researchers disagree with the use of Likert items as interval or continuous data (Chimi & Russell, 2009; Lubke & Muthén, 2004).

Definition of Terms

1. Career development – Programs or interventions that are meant to change or increase an individual's ability to make effective career decisions (Herr, 2001).

2. College Experience and Engagement Survey (CEES) – An instrument to capture the experiences of college students while attending a higher education institution.
3. Emerging adult – A period of development from the late teens through the twenties with a focus on ages 18-25 years (Arnett, 2000).
4. Experiential learning – An adult learning theory that connects education, work, and personal development (Kolb, 1984). “It offers the foundation for an approach to education and learning as a lifelong process that is soundly based in intellectual traditions of social psychology, philosophy, and cognitive psychology (Kolb, 1984, p. 3).”
5. First destination – Outcomes or the initial landing spot for graduates six months after graduation (NACE, 2021).
6. First Destination Survey (FDS) – An instrument developed to capture the outcomes of graduating college students.
7. Formal learning – “acquisitional and individual learning; vertical or propositional knowledge; within educational institutions” (Malcolm et al., 2003, p. 314).
8. High-impact practices – Effective educational practices that provide substantial educational benefits to students (Kuh, 2008). HIPs include first-year seminars and experiences, common intellectual experiences, learning communities, writing-intensive courses, collaborative assignments and projects, undergraduate research, diversity/global learning, service-learning and community-based learning, internships, and capstone courses and projects. This study focuses on the HIPs of internships, study abroad, and undergraduate research.
9. Informal learning – “learning through everyday embodied practices; horizontal knowledge; non-educational settings” (Malcolm et al., 2003, p.314).

10. Liberal Arts – A broad educational approach that develops students interpersonal skills such as communication, critical thinking, and problem solving (Nicholas, 2018; Stebleton et al., 2020).
11. Nontraditional student – A student 25 years old or older (Chung et al., 2014).

Organization of the Study

This study is organized into five chapters. Chapter 1 introduced the topic, the purpose for the research, and outlined the research questions that guide the study. The chapter further provided the significance of the study and the limitations.

Chapter 2 is the review of the literature. The literature review provided the theoretical framework for the study, and a synopsis of previously published work relevant to the topic. Additionally, information is presented to show how this research can contribute to the existing body of knowledge.

Chapter 3 provided information about the methods used to conduct the study. This chapter illustrated the research design, and the population and sample. The chapter further offered information regarding the instruments used in the study and the statistical analysis.

Chapter 4 described the results of the study. Information including tables and figures are presented to demonstrate the statistical analyses of the study.

Chapter 5 provided the discussion related to the study including the conclusions, implications, and recommendations for further research.

Chapter 2

Literature Review

Chapter 2 provides a review of literature and research on adult learning, emerging adulthood, high-impact practices including internship, study abroad and undergraduate research, first destination outcomes for college graduates, and liberal arts college graduates. The adult learning theoretical framework includes andragogy, self-directed learning, and experiential learning.

Adult Learning

The concept of adult learning has been around for more than a century. However, early practitioners wrote more about the intentions of adult education rather than the process by which adults learn (Knowles, 1978). Lindeman (1984), an early pioneer in adult education, emphasized that the learner's experience is the means of learning with the greatest value in adult education. He further postulated that the method of teaching in adult education takes place through situations, not subjects. Learning by way of experiences is supported in informal higher education programs, or high-impact practices (HIPs), including internships, study abroad, and undergraduate research opportunities. By understanding adult learning theories, administrators in higher education institutions can better incorporate informal learning experiences that promote a commitment to lifelong learning among its graduates. The adult learning theories of andragogy, experiential learning, and self-directed learning provide the framework for which educators become better equipped to work with students as they seek experiences that may enhance their opportunities beyond college in adulthood.

Andragogy

Mezirow (1981, p. 21) defines andragogy as “an organized and sustained effort to assist adults to learn in a way that enhances their capability to function as self-directed learners.” He notes that educators accomplish this by using resources like learning from others, self-reflection and evaluation, opportunities for feedback and support, and the use of experiential, participative and projective instruction methods. These concepts are also related to the characteristics of many HIPs as they also include reflection and constructive feedback.

Adult education theorist Malcolm Knowles popularized the term andragogy. He defined andragogy as the art and science of helping adults learn (Knowles, 1970). Andragogy has six assumptions including (Knowles et al., 2005): (1) the learner’s need to know (2) the learner’s self-concept (3) the learner’s prior experiences (4) the learner’s readiness to learn (5) the learner’s orientation to learning (6) the learner’s motivation to learn.

The learner’s need to know addresses the importance in adults understanding the value of learning and the reason for learning (Chan, 2010). Tough (1979) indicated that adults examine the benefit of learning and the potential negative consequences for not learning. The second assumption deals with the learner’s self-concept and an adult’s ability to engage in self-directed, autonomous learning (Ozuah, 2005). “As a person matures, his/her self-concept moves from one of being a dependent personality towards one of being self-directed (Taylor & Kroth, 2009, p. 6).” The rich resource of a learner’s prior experiences is outlined in the third assumption. Adults have experiences that learners should be encouraged to connect to the learning materials (Cochran & Brown, 2016). The fourth assumption addresses the learner’s readiness to learn. Relevancy of the material to the learner often contributes to learner’s readiness to engage in learning (Forrest & Peterson, 2006). When learning is relevant, students are more willing to

participate in learning. The learner's orientation to learning is the fifth assumption, and suggests that students are more motivated to learn when the content captures their attention and meets their specific needs (Blondy, 2007). Finally, the sixth assumption indicates that adult learners are intrinsically motivated. These motivational factors may include increased self-esteem, self-actualization, or recognition (Blondy, 2007).

Although Knowles's assumptions are foundational in the adult education literature, some critics indicated that there is a lack of empirical evidence supporting the assumptions of the learning theory (Pratt, 1993; Rachal, 2002). Taylor and Kroth (2009) discussed the need for the development of an instrument that would further the research in this area and provide a vehicle for researchers to produce measurable data. Similarly, Norman (1999) argued that andragogy, as a theory, lacked an experimental approach. He further wrote that the characteristics of adults may naturally transition to andragogy because of the general circumstances of adult life. Regardless of claims made by critics of andragogy, the assumptions made about adult learners are beneficial concepts to guide practitioners in working with adults in an educational context as they provide insight into the way in which adults learn.

College students are often categorized into a developmental stage known as emerging adulthood, therefore, understanding the assumptions of andragogy are also beneficial in educating students within higher education institutions. Although there is debate among scholars (Arnett, 1994; Harper & Ross, 2011; Kasworm, 2003) whether students attending institutions of higher education are considered adults, the concepts of andragogy can be linked to skills and skill development learned through students' participation in HIPs while attending college. Stansbie et al. (2013) found that an individual's intrinsic motivation was significantly correlated to the dimensions of work in which that individual performed during an internship. Britland

(2019) found that the use of ePortfolios, a form of HIP, promoted self-directed learning among students through their work in an ePortfolio peer consultant group and as facilitators of FolioFest. Another study (Splan et al., 2011) posited that individuals participating in undergraduate research build upon their prior knowledge thus allowing students to “connect their current research experience to their previous background and future career goals (p. 60).” In another example, students completed an internship or community-based field project to connect classroom learning or their experience with their job field (Kuh & O’Donnell, 2013). These studies connected adult learning andragogical concepts to HIPs in higher education and demonstrated the relevance of adult learning concepts in educational practices like HIPs. This link was important to the current study as it provided a theoretical lens into educating college students as they prepare to emerge into full adulthood.

Self-Directed Learning

In addition to his research related to andragogy, Knowles was impactful in the adult education area of self-directed learning. Knowles (1975) defined self-directed learning as:

A process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. (p. 18)

Cyril Houle was another contributor to the scholarship of self-directed learning, although, his use of the term “self-directed learning” was limited (Brockett & Donaghy, 2005). Houle implied self-directed learning in much of his work, and stated that as adults grow older, they create patterns of learning for themselves that change over time. Similarly, Tough (1979) indicated that adults can plan and manage their learning, and that they are capable of selecting what they learn.

A main idea in all the definitions of self-directed learning is that there is some type of individual choice involved in adult learning (Piskurich, 1993).

Francis and Flanigan (2012) suggests that there are characteristics emphasized in the higher education curriculum associated with self-directed learning. “Researchers have tried to find ways to create a better understanding of self-directed learning and how to foster it in educational environments” (Bergamin et al., 2019, p. 6). One reason educators should work to promote self-directed learning among students is that the knowledge that students gain in higher education can be outdated over time, therefore emphasizing the need to help students “learn how to learn” (Ramsey & Couch, 1994, p. 139). This idea demonstrates a need to develop students as self-directed learners and lifelong learners. This idea is also emphasized in the liberal arts where there is a focus to prepare students with transferrable skills that allow them to adapt to fast-changing, technology-driven environments (Stebleton et al., 2020).

In engineering education, the accrediting body (ABET) made lifelong learning one of its desired learning outcomes (Jiusto & DiBiasio, 2006). In an effort to discover more about this learning outcome, Jiusto and DiBiasio (2006) researched the connection between an experiential global studies program and students’ readiness for self-directed learning and lifelong learning. They observed clear success in promoting self-directed learning readiness through their global studies program, thus contributing to lifelong learning. In a qualitative approach, a connection was explored between internship experience and self-directed learning (McCall, 2001). It was found that the internship provided students an opportunity, under supervision, to practice skills which produced a growth in self-efficacy, thus influencing self-directedness. These two studies provide evidence that HIPs like study abroad and internships aid students’ development as independent adult learners.

Experiential Learning

Like andragogy and self-directed learning, experiential learning is foundational in adult education. “In experiential theory, learning is considered to be a continuous process in which knowledge is created by transforming experience into existing cognitive frameworks, thus changing the way a person thinks and behaves” (Sewchuk, 2005, p. 1311). In its simplest form, experiential learning means learning from experience or learning by doing (Lewis & Williams, 1994). Experiential education first immerses adult learners in an experience and then encourages reflection about the experience to develop new skills, new attitudes, or new ways of thinking. Lewis and Williams (1994) posited that the perspective of experiential learning shifted over time making this experience-based approach fundamental to meaningful learning. They also indicated an interest from the corporate side due to an appearance that experiential learning has benefits in developing skills desired in the workplace. In more recent work, Bradberry and De Maio (2019) researched the long-term impact that experiential learning had on students and their careers. They surveyed former students that participated in the Model United Nations and Judicial Internship programs to learn more about students’ post-graduation success and to understand the students’ assessment of skill development that prepared them for success. They found that long-term student success can be attributed to the skills they gain from participation in experiential learning programs including public speaking, writing, team building, professionalism, and leadership.

David Kolb is one of the main contributors to the literature surrounding experiential learning, however, there were several scholars that contributed to this theory. According to Atkinson and Murrell (1988):

Kolb primarily built on the work of Dewey, who recognized the importance of experience in the process of learning; Lewin, who emphasized active participatory learning; and Piaget, who conceived of intelligence as largely a result of the interaction of the individual with the environment. (p. 375)

Kolb (2015) claimed that experiential learning theory “offers the foundation for an approach to education and learning as a lifelong process that is soundly based in intellectual traditions of social psychology, philosophy, and cognitive psychology (p.3).” The model linked education, work, and personal development as necessary for developing individuals to their full potential. For college students or emerging adults, this full potential could mean the transition into full adulthood characterized by increased job stability and heightened personal and familial responsibilities.

The theory of experiential learning in the higher education setting is largely attributed to principles best articulated by John Dewey (Kolb, 2015). He had a more progressive approach and this was often in conflict with the ideas of “traditional” education in the sense that traditional learning was seen as more formal and structured. Dewey (1986) wrote, in order for education to accomplish its goal, for individuals and society, it must be based upon real-life experiences. Kolb (2015) stated that many institutions are becoming more attentive and interested in some of the original experiential learning methods introduced by Dewey, like apprenticeships, internships, studio arts, and field projects. One reason for this revived interest is connected to the relationship between higher education and career development. Kolb (2015) alluded to a trend toward vocationalism in higher education due to college critics’ views that higher education is leaving students underprepared for their careers. As more attention is placed on the way in which universities empower their students to meet their career goals (Healy et al., 2020), institutions

look for ways to enrich students' experiences to increase their employability upon graduation. Kolb (2015) further postulated that experiential learning in higher education is a constructive way to better link education and work.

To provide more knowledge about these out-of-class experiences, studies have explored experiential learning in the higher education setting (Coker et al., 2017; Wurdinger & Allison, 2017; Healey & Jenkins, 2000). One study evaluated the impact on student outcomes based on the depth and breadth of the participation in experiential learning experiences (Coker et al., 2017). They defined the depth of learning as the amount of time commitment and the breadth was defined as the number of different types of experiences. They then looked at relationships between these depth and breadth experiences and learning outcomes reported on the National Survey for Student Engagement (NSSE). This study (Coker et al., 2017) also looked at how the breadth and depth of experiential learning participation correlated with coursework and mental activities and the relationships with others at the institution. It was found that, "both depth and breadth [of experiential learning] were positively associated with acquiring a broad general education, writing clearly and effectively, contributing to the welfare of the community, relationships with faculty and administration, and desire to attend the same institution" (Coker et al., 2017, p. 19). The breadth and depth portion of this study has similarities to Kuh's (2008) recommendation for students to participate in multiple HIPs and the introduction of the HIP quality characteristics (Kuh & O'Donnell, 2013) including the amount of time and effort spent in the activity.

The concept of experiential learning provided a theoretical framework for the current study. The utilization of experience in education has been shown to impact learning outcomes and provide important skill development for career success. Because the HIPs included in this

study are experience based, it was important to consider how the incorporation of experience in learning may impact various outcomes.

Emerging Adulthood

Lifelong learning is at the core of adult learning theory and is also present in the minds of practitioners working to prepare the next generation of adult learners (Knapper & Cropley, 2000). Because of rapid demographic, societal, and technological changes in the world starting in the late twentieth century, educators have had to change the way they think about education and learning in order to promote a generation of lifelong learners (Cross, 1981; Kuh, 2008). In working with students in a higher education setting, it is important to understand the developmental period from which this population falls. Knowles et al. (2005) discussed the natural maturation toward self-direction and how teachers should move from a pedagogical approach where the teacher is responsible for learning to an andragogical approach where the learner becomes more self-directing. In adolescence, this natural maturation and the need and capacity to be self-directing increases rapidly thus indicating an appropriateness to incorporate adult learning techniques into college level instruction.

In an effort to better define the development stage in between adolescence and adulthood, Arnett (2000) proposed the term emerging adulthood as a new developmental period from the late teens through the twenties with a focus on ages 18-25 years. This period of the lifespan is characterized as a time of exploration, and the American college provides an excellent environment for emerging adults according to Arnett (2016). Although college provides an opportunity for self-identity in emerging adults, Arnett (2016) stated that because only about 20% of emerging adults attend college, studies focused on this population within a college context will be disproportionately from a higher socioeconomic status, white, and female. This

statement provides perspective into the lack of generalization of study results that focus on emerging adults in higher education settings. While college students only make up a portion of the emerging adult population, they are a valuable group to study (Arnett, 2016).

“Emerging adults often explore a variety of possible life directions in love, work, and worldviews (Arnett, 2000, pp. 469).” This time of identity development and exploration is an important part of students’ career development. Career exploration is a method in which emerging adults can explore the world of work to assist in career decision making (Atkinson & Murrell, 1988). Student development practitioners i.e., career advisors understand the priority of preparing emerging adults for the transition from school to work (Rosemond & Owens, 2018) thus giving them the ability to assist the emerging adult in this developmental process. This study adds to the literature to provide insight into educational practices in which students can use to support their career development and how these practices can be related to FDOs.

High-Impact Practices

The importance of educators understanding the origin, background and framework of adult development and adult learning theories was established in the previous section. Similar to adult learning theories, the details surrounding the concept of HIPs as a field for scholarly work is important. The Association of American Colleges and Universities (AAC&U) launched the Liberal Education and America’s Promise (LEAP) initiative in 2005, which focused on the learning outcomes and the guiding principles needed for a twenty-first century college education. Kuh (2008), with supporting evidence, officially labeled a set of highly educational practices as “high-impact,” officially developing the term HIPs. Recognized HIPs include:

- first-year seminars and experiences
- common intellectual experiences

- learning communities
- writing-intensive courses
- collaborative assignments and projects
- undergraduate research
- diversity and global learning,
- service and community-based learning
- internships
- capstone courses and projects (Kuh, 2008)

Kuh (2008) recommended that students participate in at least two HIPs, one in the first year and one later directly related to the student's program of study. To substantiate these HIPs, Kuh (2008) collected data from the National Survey of Student Engagement (NSSE) to conduct research on these practices and the benefit to students. This research showed that students' reported gains on key outcomes of high-quality learning were highly correlated with participation in these practices. Furthermore, the research showed that while all students benefit from participating in HIPs, students from underserved populations were more likely to close the gap to their peers when participating in HIPs. A major focus of research related to HIPs is that of making participation equitable to all students (Finley & McNair, 2013). This is important to ensure that students achieve outcomes that have been associated positively with HIP participation regardless of background or demographic characteristics.

These practices have been associated with many other research studies (Price & Tovar, 2014; Cobane & Jennings, 2017; Larson et al., 2020) and have found to have substantial educational benefits and significant positive correlations with educational results (Schneider, 2008). Some of the outcomes that have been shown to be positively correlated with participation

in HIPs include graduation rates (Roldan et al., 2020), student retention (Provencher & Kassel, 2019), career readiness (Aron, 2020), and sense of belonging (Kirby & Thomas, 2021).

Student learning outcomes have also been studied as a link to HIPs. Kilgo et al. (2014) used data from the Wabash National Study of Liberal Arts Education to study a variety of liberal arts educational outcomes and their relationship to participation in HIPs. The liberal arts outcomes included in the study were: (1) critical thinking, (2) moral reasoning, (3) inclination to inquire and lifelong learning, (4) intercultural effectiveness, and (5) socially responsible leadership. They found that participation in some of the HIPs, specifically collaborative learning and undergraduate research, related positively to a variety of liberal arts educational outcome measures. Other HIPs showed a much narrower impact. While this study connects HIPs to valuable learning outcomes, and these liberal education outcomes are typically desired in college graduates (Stewart et al., 2016), an opportunity is presented to further connect liberal arts and HIPs to graduation outcomes.

Early career outcomes were explored by Wolniak and Engberg (2019). The purpose of the study was to investigate the relationship between student engagement in the form of HIPs and early career outcomes. In this study, the researchers used data collected from the Education Longitudinal Study that was “designed to explore students’ transitions from secondary school into postsecondary education and subsequently into the workforce” (Wolniak & Engberg, 2019, p. 834). The research questions addressed specific areas of earnings, job satisfaction and commitment, and opportunities for learning and challenge. In addition, the affects based on college major and institutional quality were explored. They found that there was not a broad effect on early career outcomes from participating in HIPs, but rather that participation in specific activities support specific outcomes. The effects of high-impact experiences were also

associated with career outcomes by major and field of study. Because the study focused on early career earnings, it could not account for students that may have attended graduate school thus having less time in the workforce. This presented an opportunity through the present study to explore multiple graduation outcomes in relation to HIPs and majors.

Since HIPs were introduced, Kuh and O'Donnell (2013) indicated that "most of the research about HIPs does not take into account the structural aspects of the program or practice or how well specific high-impact practices are implemented" (p. 1). They identified eight quality dimensions that might serve as the basis for evaluating whether HIPs are beneficial for students. These eight quality items include,

- performance expectations set at appropriately high levels
- significant investment of time and effort by students over an extended period of time
- interactions with faculty and peers about substantive matters experiences with diversity
- frequent, timely, and constructive feedback
- periodic, structured opportunities to reflect and integrate learning
- opportunities to discover relevance of learning through real-world applications
- public demonstration of competence (Kuh & O'Donnell, 2013)

With the recognition of quality measures associated with high-impact practices, institutions and practitioners should begin research and data collection that incorporates this advanced logic (Kuh & O'Donnell, 2013).

The National Survey for Student Engagement (NSSE) is often used as a data source in research related to HIP participation (Finley & McNair, 2013; Garvey et al., 2018; Morris et al., 2019; Tukibayeva & Gonyea, 2014). One purpose of the NSSE is to collect information from

students across the nation about learning and personal gains from participation in institutional programs and activities, i.e. HIPs (Ewell & McCormick, 2020). The survey receives an average 30% response rate (NSSE, 2020). Although some scholars have questioned the reliability and validity of the NSSE (Campbell & Cabrera, 2011; DiRamio & Shannon, 2010), the NSSE remains one of the most popular surveys for institutional decision making (Pike, 2012).

Miller et. al. (2018) explored the relationship between participation in high-impact practices and career outcomes using NSSE data; however, characteristics of quality were not considered. The researchers indicated that a limitation to their study was that the data used did not allow them to account for whether the HIP was delivered as intended. They further stated that there might be different results depending on the design or the structure of the HIP. Despite the limitations related to HIP quality, they found that HIP participation is a significant predictor of future career plans and early job attainment. Specifically, the research indicated that students' post-graduation goals may influence their participation in HIPs. Internships, capstones, and services learning were positively associated with the likelihood of graduates being employed while leadership experiences and undergraduate research were positively correlated with graduates plans of attending graduate school. This study shows the importance of understanding the relationship between HIPs and post-graduation outcomes, it suggests the inclusion of the quality of practice.

Researchers have suggested that the quality of practice and implementation are often not part of the focus of studies (Finley, 2019; Finley & McNair, 2013). However, Zilvinskis (2019) used the data from the 2015 NSSE administration that contained an experimental set of quality related questions only available to select institutions. This experimental set of questions asked about seven of the characteristics outlined by Kuh (2008), and in this study, six of them were

statistically significant to the outcomes studied. Those outcomes include the engagement measures Higher-Order Learning, Effective Teaching Practices, and Supportive Environment. Outcomes also included self-reported GPA and satisfaction of educational experience. This study was important to show quantitative support as to the relevance of quality as a component for HIP research. While the quality component of HIP participation was present in Zilvinskis's (2019) study, it was stated that additional outcomes i.e., FDOs, could be explored in relation to the quality measures. At the time of publication, this was the only study related to HIP quality.

To further the research on the characteristics of HIP quality, in 2019, the Assessing Quality and Equity in High-Impact Practices project (HIP Quality Project) was taken on by scholars at Indiana University's Center for Postsecondary Research (Kinzie et al., 2020). The purpose was to enhance the assessment of HIPs by adding the quality elements of practice and implementation. The project developed quality related survey questions to add to the NSSE and to a free-standing Qualtrics administration. The first administration of the forty-question section of the NSSE took place in the spring of 2019 and included 58 institutions. Because the quality items have just been developed for more widespread data collection, research is scant in the area of HIP quality.

This section described several research studies that were related to the current study and were important in identifying the gaps in the literature. Kilgo et al. (2014) found that a relationship exists between HIPs and liberal learning outcomes, therefore, the current study sought to further explore this connection of HIPs, Liberal Arts, and FDOs. Wolniak and Engberg (2019) researched HIPs and early career outcomes. Because only job-related outcomes were explored, the current study expanded the research to include the outcome related to the pursuit of additional education in addition to employment. Miller et al. (2018) investigated the relationship

between HIPs and post-graduation outcomes. They suggested the use of quality data in future research; therefore, the current study included the quality items as part of the research. Zilvinsis (2019) studied the quality of HIP participation and educational outcomes like GPA, while the current study explored the quality relationship and FDOs.

Internship

Internships are a common practice used in higher education to provide students with work-based and experienced-based learning opportunities. Internships have been shown to prepare students for careers, while also developing students' skills that are sought by employers (Chillas et al., 2015). Research studies have been conducted that explore how internships are related to student development (Gilbert et al., 2014; Hurst et al., 2014), career outcomes (Callanan & Benzing, 2004), and academic outcomes (Binder et al., 2015; Stansbie et al., 2013). Additionally, internship research has been conducted on the quality of practice (Gamboa et al., 2020), paid versus unpaid experiences (McHugh, 2017), and requiring participation (Divine et al., 2007).

Callanan and Benzing (2004) explored the relationship between placement into a career-oriented job and completion of an internship assignment. The researchers hypothesized that students completing internships would have a significantly higher acceptance rate of career-oriented employment and that these students will report a greater confidence in their compatibility with the selection. They made this assumption because of links shown between career success and job fit (Chen, 2010). Callanan's and Benzing's (2004) study showed that there is a significant correlation between completing an internship and accepting a job, however, there was not a significant correlation between confidence in the personal fit of the job and completion of an internship. While this study did link internships and the first destination outcome of

employment, it focused on business majors. Because this study only focused on business majors, it was suggested to explore internships and career-related outcomes in other fields.

While many research studies focus on the benefits of internships on career outcomes (Gault et al., 2000; Callanan & Benzing, 2004; Saltikoff, 2017), Binder et al. (2015) focused their study on the academic outcomes related to internship participation. The results of their study showed positive correlations between internship participation and subsequent academic outcomes of degree mark and degree class, indicating there is a significant affect for those that have this type of college experience. A study by Myring et al. (2005) also explored the effects of internships and academic outcomes. The study was specific to students majoring in accounting and found that students that completed internships did show higher academic performance when compared to those students that did not complete internships. Although there are academic benefits to completing internships, Prescott et al. (2020) found that students who are enrolled in an internship and coursework together have a statistically-significant, negative effect on academic performance during the semester the internship is taken. This indicates that consideration needs to be given as to when students complete their internships.

Internships are meant to allow students an opportunity to explore their interests, gain professional experience, network, and try out their knowledge and skills in work-based settings (O'Neill, 2010). However, not all internships provide direction and meaningful work. Gamboa et al. (2020) sought to analyze internship quality and career exploration behavior. This study found that internship quality items that were most impactful included learning opportunities, variety of tasks, and supervisor support and training. Another study that focused on quality factors (Pan et al., 2018) sought to link internship quality and proactive personality with career adaptability. They deduced that internship quality was related to job search success. The quality

characteristics of this study that were of importance included skill-development sessions, meaningful work, whole tasks, work autonomy, and timely feedback. Their results also indicated a greater importance on quality for students that are less proactive. Both of these studies were able to demonstrate the importance of research that addresses the quality of practice on various student outcomes.

Related to the concept of quality of practice, McHugh (2017) studied the characteristics of compensation, supervisor behaviors, and work activities and their role in internship efficacy. This study found that supervisor mentoring is higher for students in paid internships, specifically mentors that provide direction and feedback regarding personal and career development. While this relationship was higher for paid interns, autonomy was lower. Paid internships also had a higher perceived development value and an increased likelihood for students to consider future employment with the employer. “For unpaid internships, supervisor mentoring was strongly related to internship development value and mildly related to internship satisfaction” (McHugh, 2017, p. 376). This research implied that paid internships provide a great benefit for students, however the quality characteristics of the work and the interaction with a supervisor may also be worthwhile of further investigation regardless of compensation.

Whether or not an internship experience is required in the curriculum is another area of interest in the research. James (2018) studied the benefits of required internships in order to better understand the benefits when self-selection of participation is not a factor. The study found that there is overlap in benefits for self-selected and mandatory internships. However, it was also found that students are supportive of policies that require internships.

Another perspective in the research is how students conceptualize their internship experience (Hora et al., 2020). This qualitative study examined the terms or words students most

associated with internships. They found that those terms most associated by all students in the study were learning, experience, advancement, and connections. Students that participated in an internship most commonly associated the words learning, exploration, and experience while students that had not had an internship more frequently mentioned the words experience, learning, unpaid, and advancement. This research provided insight into the student perspective of internships, and indicated that student voice, experience, and needs in the internship design is important.

Study Abroad

Another popular HIP in which students elect to participate is study abroad. As society becomes more global, many students are opting to participate in international experiences through study abroad opportunities. It is important for higher education administrators and faculty to understand the benefits of such programs to their students. A study conducted by Cisneros-Donahue et al. (2012) evaluated the benefits by exploring the knowledge students gain upon completing a study abroad experience. They compared results from pre and post tests, as well as students who did and did not participate in study abroad. The instrument used assessed students across five dimensions including functional knowledge, knowledge of world geography, knowledge of global interdependence, knowledge of interpersonal accommodation, and knowledge of cultural sensitivity. The researchers found that students participating in study abroad had statistically significant higher mean responses along the five dimensions on the post test compared to the pre test. These results provide evidence as to the benefits of study abroad to student learning.

In another study that focuses on learning outcomes, Stebleton et al. (2012) found that students who participate in various types of abroad programs have a significant increase in

intercultural and global competencies. This research supports the identification of study abroad as a high-impact practice. While this study shows the significance of study abroad and important globally based learning outcomes, there is an opportunity to identify how these outcomes can be used to impact FDOs.

Because study abroad programs have been shown to provide academic benefits to students, it is important that students have access to quality programs. The Institute of the International Education of Students (IES), a nonprofit program provider, operates using two sets of standards including the Model Assessment Program (MAP) and the Forum on Education Abroad Standards of Good Practice (Gillespie, 2009). The use of the MAP and the Standards of Good Practice was to provide a set of standards that apply to the field as a whole for the programming and operations of study abroad programs. These standards also provided guidance in the area of assessment for quality of practice. It is of importance to note that the MAP and Standards of Good Practice represent quality in programs overall while the quality HIP characteristics presented by Kuh and O'Donnell (2013) were relevant to the individual experience in the study abroad program.

In addition to the benefits of study abroad for students, educators have questioned “the extent to which study abroad increases prospects for employability following graduation” (Trooboff et al., 2007, p. 17). Trooboff et al. (2007) surveyed employers to gain insight into their attitudes about study abroad and whether it impacts hiring decisions. They found that employers generally value study abroad, and that employers with higher internationally generated revenue are more likely to find these experiences valuable. They also found that employers value skills that can be derived or enhanced by study abroad. The researchers suggested that students receive

some training in how to present their experiences in order to reflect important skills and learning outcomes. This practice may increase the employability of students with abroad experience.

Research has also been conducted to understand student perceptions of benefits associated with international experiences. Curtis and Ledgerwood (2018) sought to understand the motivations, perceived benefits, and challenges of students in regard to engaging in study abroad programs. They found that the biggest challenge students face is that of cost. Students also indicated that participation in study abroad may interfere with academic progress or goals. Students also perceived that there would be benefits to their job search upon graduation because of more competition on a global scale. This research allows institutions to better understand the study abroad experience from the student's perspective. This perspective may impact program design and access for students that have seen study abroad as an unattainable endeavor.

Undergraduate Research

As with participation in internships and study abroad, colleges and universities seek to understand the benefits of undergraduate research on students' educational experiences and outcomes. Studies have been conducted that review learning goals and outcomes in regard to the research experience (Craney et al., 2011), whether participation in research enhances the educational experience (Lopatto, 2007), and student perceptions of the effectiveness of learning through research as compared to learning through course work (Ward et al., 2002). Craney et al. (2011) found that participation in undergraduate research increased students' desire to pursue advanced study and increased their communication and problem-solving skills. In Lopatto's (2007) research, it was found that students highly rated their educational gains from their research experience in the areas of understanding the research process and readiness to work on more demanding research, however the area of learning ethical conduct and clarification of

career path were rated lower. Similarly, Ward et al. (2002) reported that students believed to have increased their technical skills in research while also reporting that the majority of respondents indicated a greater learning outcome through their research experience than through their standard courses.

Most studies conducted in the area of undergraduate research focus on students in specific academic disciplines (Corley, 2013; Zydney et al., 2002; Oliveira et al., 2014) or at least already immersed in their programs of study. Bowman and Holmes (2018) took another approach and explored whether participation in undergraduate research as a first-year college student affects student success outcomes including GPA, university satisfaction, retention, intentions for graduate school, and 4-year graduation rate. They found that undergraduate research in the student's first year has a statistically significant positive relationship to student's fourth-year GPA and their satisfaction with their university in the first year.

In addition to academic outcomes, research has been conducted to investigate the relationship of undergraduate research and graduate and professional education pursuit (Hathaway et al., 2002). Hathaway et al., explored whether participation in undergraduate research influenced students' pursuit of additional education and the use of faculty for job search recommendations. They found that participation in undergraduate research was significantly related to the pursuit of graduate and professional school and the use of faculty for job search recommendations. Similar to Bowman and Holmes (2018), the findings suggest that participating in research as a first-year student was important for students' long-term educational pursuits. They also suggested that faculty-student interaction was beneficial to students and their educational aspirations.

Cooper et al. (2019) investigated the long-term education and career impacts as it relates to participation in undergraduate research experiences (UREs). This study sought to explore the differences in outcomes of the National Oceanic and Atmospheric Administration's (NOAA) URE participants and nonparticipants while controlling for motivational factors related to participation. All students included in this study applied to participate in UREs, thus indicating similar levels of motivation to participate in UREs. Students accepted were the participants and students not accepted were the nonparticipants. The outcomes they included in this correlation were recipients' applied knowledge specific to NOAA-mission fields, recipients' contributions in the form of publications, manuscripts and presentations, and recipients' education and career persistence in NOAA-mission fields. The significant results reported, showed that participants were 1.2 times more likely to publish in a peer-reviewed journal, 2.2 times more likely to attain an advance degree, and 1.92 times more likely to be a part- or full-time employee of NOAA. While this study showed the positive impact of research experience on outcomes relevant to pursuing advanced degrees and employment for students in STEM fields, it is worthwhile to expand the body of knowledge to gain an understanding of how these same experiences correlate to outcomes of graduates in other fields.

First Destination Outcomes for College Graduates

There is an abundance of literature regarding student outcomes such as persistence, retention, and graduation rates (Bonet & Walters, 2016; Johnson & Stage, 2018; McDaniel & Van Jura, 2020; Thomas et al., 2021). There is less research focused on outcomes of employment and postgraduate education and the factors that contribute to these outcomes. Because prospective students and parents value an institution's return on investment, research demonstrating outcomes like employment is essential (Kelly & Walters, 2016).

The National Association of Colleges and Employers (NACE) employs a first-destination survey that collects data associated with college education and outcomes for graduates within six months of graduation. Institutional efforts to assess employment related outcomes is not a new endeavor (NACE, 2021). Therefore, in order to provide some consistency in these efforts, NACE (2020) developed standards and protocols that serve as guidelines in the collection of first destination outcomes. The NACE survey also provided relevant benchmarks for institutions working to assess first destination outcomes (Kelly & Walters, 2016). Access to first destination outcome data is important, however, research linking demographics and educational practices is needed to further the body of knowledge. This type of research can be used to inform administration, faculty, and student services professionals of the factors that may lead to success beyond graduation.

One study explored how college experiences and outcomes are affected by socioeconomic status (SES) (Walpole, 2003). The purpose of the study was to compare low SES and high SES groups regarding their cocurricular and academic activities, and their outcomes, income, educational aspirations, and educational attainment. The study found that low SES students invested more time in economic capital such as working while in college and less time on academic capital including time spent studying. Furthermore, it was reported that students from low SES backgrounds reported lower income levels and attended graduate schools at lower rates. Walpole (2003) suggested that future research was needed to understand the effects of student involvement and activities in relation to outcomes. More specifically, research that views students from low SES backgrounds separately in order to gauge how the need to work might limit students' time for extracurricular activities or other educational practices.

A study conducted by Vermeulen and Schmidt (2008) investigated the quality of teaching and whether it predicted career success and explored the role of education in opportunities for students in the labor market. The researchers surveyed alumni and collected data relevant to variables including the academic learning environment, student motivation, involvement in extra-curricular activities, students' learning outcomes, job competencies, and career success. The study found that personal academic interaction and well comprised curriculum models increase student motivation thus encouraging an increase in learning outcomes. Furthermore, they discovered that career success is affected by student learning outcomes and by involvement in extra-curricular activities. They suggested future research to explore student experiences and professional success.

Finley (2021) explored employer views on higher education and workforce preparedness. The purpose of the study was to understand the skills and characteristics that employers value when hiring college graduates. They found the majority of employers find the skills attributed to a liberal education important for college educated graduates. They also found that they would be more likely to give hiring preferences to graduates that had participated in at least one HIP. This research showed the employers perspective when hiring college graduates, and how HIP participation can influence the FDO of employment.

College Graduates in Liberal Arts Disciplines

The liberal arts were a mainstay in early postsecondary education. The Yale Report of 1828 established the purpose for the liberal arts and indicated an importance for liberal education within higher education institutions (Herbst, 2004). The report emphasized the purpose of liberal education as laying the foundation for professional studies and to broaden the knowledge of graduates to prepare them to interact with the world around them regardless of profession. The

report also referenced practical education beyond a liberal base by noting that the circumstances in which professions are practiced provides an effectual learning environment. Although HIPs made their debut many years later, it is clear that the liberal arts combined with practical experience like internships, study abroad, and undergraduate research is preparatory for the next step in college graduates' lives (Stebbleton et al., 2020).

The liberal arts have a rich history, however, there are critics of the liberal arts as a college major for students in the twenty-first century (Jennings, 2014). These critics argue in favor of students pursuing degrees that appear more connected to employment opportunities (Cameron et al., 2019). Although there are critics of the liberal arts, there are also champions for the disciplines in these fields (Anders, 2017; Brown, 2015; Nussbaum, 2010; Stross, 2018). These champions contend the value of the liberal arts. The development of students' transferrable skills like communication, critical thinking, problem solving, and team work are commonly cited as valuable aspects of the liberal arts (Dorman & Brown, 2018; Hill & Pisacreta, 2019), and these skills are generally sought out by employers (Knotts, 2002). Another cited benefit attributed to the liberal arts is students becoming lifelong learners (Lunney, 1996) which is a foundational principle in adult education.

Studies have been conducted on the career trajectories and graduation outcomes (Hurst, 2018; Jackson & Bridgstock, 2019), employability (Nicholas, 2018), career earnings (Ford & Choi, 2018; Humphreys & Kelly, 2014), and job satisfaction (Adams, 2018) of liberal arts graduates. Jackson and Bridgstock (2019) explored the outcomes of business and creative industries graduates, while also investigating career satisfaction, perceived employability, and perceived career success. It was found that 87% of graduates from creative industries had worked in a professional role post-degree and 77.2% indicated they were either self-employed or

employed full-time. While it is important to understand these outcomes, the study does not account for how the educational experience in which a student participated may influence career outcomes beyond the degree.

In a report by the American Academy of Arts & Sciences (AMACAD, 2018), liberal arts related fields earn lower incomes than those in STEM and business. However, graduates in liberal arts fields recorded earnings substantially higher if they were advanced degree holders versus those that only completed bachelor's degrees. This report further stated that 41% of humanities graduates earned an advanced degree. Adams (2018), in a complementary essay to the AMACAD report, posited that it is necessary to look beyond basic financial measures, and that the report showed a similar level of job satisfaction among graduates from all academic fields. He further indicated that earnings do not have the same meanings to all people. The AMACAD report found that humanities graduates worry about money at the same rate as STEM graduates and are only slightly more worried about finances than engineering graduates. The report also presented a comparison of debt levels among college graduates and showed negligible differences between humanities and non-humanities graduates. These studies are important in understanding the outcomes of liberal arts graduates but lack a connection to various learning practices and techniques that may impact these outcomes.

In an effort to help students understand the value of their liberal arts degree and articulate that value to employers, institutions have invested in career development strategies (Stebbleton et al., 2019). There are arguments to fully integrate career development learning into the curriculum (Bridgstock et al., 2019), while some institutions opt for a career planning course. Stebleton et al. (2019) designed a career development course for the main purpose of developing students' ability to understand and communicate the career competencies gained in their liberal arts

degree. In a qualitative study to measure the effectiveness of the course (Stebbleton et al., 2019), they found that the opportunity to reflect on experiences was beneficial in connecting those experiences to career competencies. Nichols (2018) also suggested reflection as an important career development strategy for liberal arts graduates.

Summary

The literature review contained a rich body of knowledge surrounding adult learning theories including andragogy, experiential learning, and self-directed learning. Topics also covered in the review of literature included emerging adulthood, HIPs, internship, study abroad, undergraduate research, FDOs, and liberal arts graduates.

Learning through experiences is a concept that has been practiced in education for a long time. In adult education, experience is seen as the means of learning and much adult learning is through situations rather than subjects (Lindeman, 1984). Experience as a form of learning is also foundational in the HIPs of internship, study abroad, and undergraduate research. In preparation for students to become lifelong learners, it is important that post-secondary educators integrate adult learning methods into instruction. Andragogy and self-directed learning can be linked to important skill development for students as they prepare to graduate from college.

In the literature, HIPs have been primarily studied in connection with academic outcomes and student development. This is a gap in the literature and therefore provided an opportunity for research to be conducted that connect HIP participation to desired graduation outcomes. Because many students choose to attend college to enhance their opportunities for better careers, institutions need a deeper understanding of the educational practices that promote the successful outcomes students desire.

Internship, study abroad, and undergraduate research are just a few of the recognized HIPs. These three practices have been linked to academic outcomes, skill development, and learning outcomes. However, until recently (2019), there has not been a consistent way to evaluate the quality of the practices in order to ensure students are participating in programs that are beneficial to their success. Because of this gap in the literature, the present study explored a connection between quality characteristics of HIPs and students' FDOs.

The liberal arts have a long history in higher education. There are both critics and supporters of the liberal arts, however liberal arts programs have seen a decline in enrollment in recent years. Part of this decline can be attributed to students pursuing degrees that have a more direct connection to employment. Because the liberal arts are often connected to the development of students' transferrable skills, it's important to better understand how the liberal arts can lead to success beyond college.

In summary, there has been little empirical evidence presented in prior research on the way in which participation in HIPs may relate to students' FDOs, and there has not been any research with this focus within the liberal arts disciplines. Additionally, minimal research has been conducted to address the quality characteristics of student experience in HIPs because the quality items were only recently (2019) adopted in terms of systematic assessment. To fill these gaps in the literature, the present study was conducted to explore the relationship between HIPs and FDOs including the quality of practice, for liberal arts graduates.

Chapter 3

Methods

Chapter 3 provides information about the methods used to conduct the study. This chapter illustrates the research design, and the population and sample. The chapter further offers information regarding the instruments used in the study and the statistical analysis.

Purpose of the Study

“One of the primary goals of higher education is to prepare students to become contributing members of society, in particular the workforce, upon graduation” (Miller et al., 2018, p. 489). There are numerous factors that contribute to the post-graduation success of college graduates, and institutions should focus assessment resources on out-of-classroom experiences (i.e., high-impact practices, HIPs) that might contribute to valued outcomes (Kuh et al., 1994; Kuh, 2008; Kuh & O’Donnell, 2013; Finley & McNair, 2013). This study sought to better understand how participation in HIPs, connects to graduation outcomes of liberal arts students. This study further sought to evaluate the quality of the HIPs, specifically internships, study abroad, and undergraduate research and how this quality of participation may relate to first destination outcomes (FDOs) for students in the liberal arts.

Research Questions

This study was conducted to answer the following research questions:

1. What is the relationship between participation in high-impact practices (internship, study abroad, and undergraduate research) and first destination outcomes (full-time employment, enrollment in additional coursework, neither full-time employment or enrollment in additional coursework) for liberal arts students?

2. Is there a relationship between the self-reported quality of internship experience and the first destination outcomes for liberal arts students?
3. Is there a relationship between the self-reported quality of study abroad experience and the first destination outcomes for liberal arts students?
4. Is there a relationship between the self-reported quality of undergraduate research experience and the first destination outcomes for liberal arts students?

Research Design

This study utilized secondary data collected in the 2019-2020 administration of the Campus Engagement and Experience Survey (CEES) and the First Destination Survey (FDS) at a large, public land grant university in the southeastern United States. This study included participants that were enrolled in a graduation course at the sample institution during the fall 2019 and spring 2020 semesters. The graduation course has four requirements including completion of the CEES and the FDS. This study utilized the data collected through this course in the fall 2019 and spring 2020 semesters because both surveys were conducted simultaneously beginning in fall 2019. The secondary data source provided a sample for the study that contained an average 99% completion rate for both surveys among liberal arts students at the institution within their graduation semester.

This correlational study explored relationships among the dependent variables from the FDS of full-time employment or enrolling in additional education, and the independent variables from the CEES of participation in the high-impact practices of internship, study abroad, and undergraduate research. Frequencies among demographic groups such as ethnicity, gender, and age were also investigated. In addition to the explanatory correlations, this study sought to explore the predictive relationship between the reported quality of the internship, study abroad

and research program in which the student participated and the aforementioned graduation outcomes.

Population and Sample

The target population for this study was graduating college students majoring in a liberal arts discipline from universities in the United States. Figure 1 outlines the overall population, sample institution population, and the sample information used for the study. According to Data USA (2019), there were 24,981 bachelors degrees awarded in the areas of liberal arts and sciences. From all degrees awarded in liberal arts and sciences, 62.3% were female and 37.7% were male. The race and ethnicity of students awarded degrees in liberal arts and sciences were 46.5% white, 10.3% black, 26.7% Hispanic, and 5.8% Asian. The sample for this study was collected through a required graduation course at a large, public land-grant institution in the southeastern United States. In the 2018-2019 academic year, the institution had a student population of 30,440 where 9% or 2,766 consisted of undergraduate students majoring in liberal arts. Of the 2,766 liberal arts undergraduate students 65% were female and 35% were male, and 80% identified as white, 8% identified as black, 5% identified as Hispanic, and 1% identified as Asian. The sample for the study included 568 liberal arts graduates. Of those 568 graduates, 67.96% identified as female and 32.04% identified as male while 80.99% identified as white, 7.22% identified as black, 4.23% identified as Hispanic, 1.41% identified as Asian, and 6.16% identified as other. The frequencies at the sample institution for gender were representative of the overall population, however there was a much higher frequency of white students at the sample institution while the general population had a much higher frequency of Hispanic students.

Figure 1

Population and Sample

Overall Population Information

- According to Data USA (2019), there were 24,981 bachelor's degrees awarded in the areas of liberal arts and sciences.
- 62.3% female and 37.7% male
- 46.5% white, 10.3% black, 26.7% Hispanic, and 5.8% Asian

Sample Institution Population

- 2,766 undergraduate students majoring in liberal arts
- 65% female and 35% male
- 80% white, 8% black, 5% Hispanic, and 1% Asian

Sample

- 568 liberal arts graduates
- 67.96% female and 32.04% male
- 80.99% white, 7.22% black, 4.23% Hispanic, 1.41% Asian, and 6.16% other

Instruments

The study was conducted utilizing the secondary data gathered through the sample institution's required graduation course during the fall 2019 and spring 2020 semesters. The sample institution developed the CEES in 2019 to collect data to assess items in the university's strategic plan and the quality enhancement plan (QEP). The Director of Academic Assessment, an I/O Psychologist with relevant psychometric knowledge and experience, developed the instrument with support of representatives from each academic college, the University Career Center, University Writing, Office of Undergraduate Research, and Office of International Programs.

The CEES which was first launched in fall 2019, collected data associated with participation in five HIPs including study abroad, co-op, ePortfolio, internship, and undergraduate research. General information about whether students participated in each HIP and the details associated with that participation is collected. The details included location, duration, and reason for participation. In addition to general information, eight Likert-type questions are included to assess quality for each HIP in which the student indicated participation. Students are asked to choose their level of agreement, 1- strongly disagree to 5- strongly agree,

on eight items that were derived from Kuh and O'Donnell's (2013) eight key elements of HIPs.

Those items consisted of the following:

- appropriately high-performance expectations during the experience
- effort required over an extended period of time
- interaction with faculty and peers during the experience
- exposure to people and/or settings unfamiliar
- constructive feedback during the experience
- structured opportunities to reflect on learning
- real-world application to the experience
- oral presentation about the experience (Kuh & O'Donnell, 2013)

The coefficient alpha was calculated across the eight questions, for each HIP, as a reliability estimate for quality and they were strong (internship, $\alpha=.834$; study abroad, $\alpha=.869$; undergraduate research, $\alpha=.822$). In addition to the HIP related questions, skip logic was utilized in the survey to direct students based on major to an additional set of questions established by the students' academic college. For liberal arts students, the survey included 113 questions and took approximately 25-30 minutes to complete.

The FDS was also developed by a working group of administrators and faculty at the sample institution and was first launched in the spring 2019 semester. The development team consisted of representatives that are experts in the field of academic assessment from the Provost's Office, the Office of Academic Assessment, the Office of Institutional Research, and faculty from various academic colleges. The purpose of the instrument was to collect information about students' plans after graduation. It has fewer than 10 questions and took approximately 5-

10 minutes to complete. The FDS that is included in the graduation course asked students to select one of the following for their post-graduation plans:

- I have accepted full-time employment or will be self-employed (on average more than 30 hours per week)
- I have accepted part-time employment or will be self-employed (on average less than 30 hours per week)
- I will participate in a volunteer or service program (e.g., Peace Corps, Teach for America, mission work)
- I will serve in the U.S. Military
- I will be enrolled in additional coursework (e.g., graduate/professional study)
- I will continue to seek employment
- I will continue to seek enrollment in additional coursework (e.g., graduate/professional study)
- Not seeking employment or continuing education at this time
- Other, please describe

The survey further collected information related to students' responses such as description of employment or type of continuing education. In addition to the initial data collected from the survey, six months after the administration of the FDS to graduates, the university followed up with students to further document FDOs after undergraduate degree completion. The follow-up consisted of phone calls, LinkedIn searches, and the utilization of National Student Clearinghouse data to record students' FDOs. This study utilized the six-month data collected from students and the HIP participation collected from the CEES.

Data Collection

Data is collected from graduating students at the sample institution three times per academic year to coincide with the institution's three graduation dates: the fall, spring, and summer semesters. This study utilized the fall 2019 – spring 2020 collection period. Graduating students are required to enroll in a graduation course in the term they intend to graduate. The graduation course is a not for credit course that is accessible through the institution's learning management platform. The zero-credit course has four components that students are expected to complete in order to receive their diploma. Failure to meet the requirements does not delay the conferral of the degree, although it does delay the receipt of the diploma. Because of these expectations the course sees compliance rates above 90% with all four components of the course. The components of the course include an academic assessment linked to a general education learning outcome, a diploma and ceremony application, the CEES and the FDS. Students complete the CEES within the last four weeks of the semester and the FDS within the last two weeks. Students are reminded to complete these requirements through email from the institution's academic assessment office and the learning management platform. The CEES and FDS had 99% completion rates among students within the liberal arts. In addition to the survey data, the sample institution obtains six month follow up data on students for FDOs. Student demographic data is collected through the institution's data warehouse, and then is de-identified by the institution's administrative office that provides oversight for the zero-credit course prior to the distribution of data for research purposes. An Exemption Review Application was approved by the Institutional Review Board and is included in Appendix C.

Data Analysis

IBM SPSS 26 statistical software was used to analyze the data to answer the research questions. Because most variables in the study were categorical, descriptive statistics such as frequencies and proportions were used to describe the sample, the participation in HIPs, and the first destination of students. Major (categorized), gender, race/ethnicity, traditional/nontraditional status, Pell eligibility, first-generation status, and residency was also reported to illustrate composition of the sample.

To conduct the analysis for research question one, the relationship between participation in HIPs and FDOs, multinomial logistic regression was appropriate. This method was used because there were three dichotomous dependent variables. To prepare the data for analysis, first destination data was recoded into three categories. Students who indicated they had accepted full-time employment were coded as employed. Students who indicated they would be enrolled in additional coursework were coded as education, and all others were coded as neither employed nor enrolled in education. The categories of full-time employment and further education were utilized because they were considered successful student outcomes and are more commonly understood. All other outcomes were categorized as neither because they could not be consistently interpreted across students. For example, full-time employment is usually 40 hours per week and part time employment varies between 1 and 30 hours per week. Students planning to volunteer after graduation also had variability in their responses. Students that selected other were placed into the appropriate category utilizing the free text response provided. Students that indicated they were serving in the U.S. Military were removed from the dataset as it was considered successful but did not fit into the established categories of full-time employment and additional education. Furthermore, there were an insufficient number of military responses to

establish their own category. The independent variable of internship was coded as 1 for participated in an internship and 0 for did not participate. The same coding was completed for the independent variables of study abroad and undergraduate research.

Multinomial logistic regression was used for the analysis of research questions two, three, and four to explore the relationship of the quality items reported for each HIP participation and the FDOs. This method was appropriate because of the three dichotomous dependent variables. The dependent variables were dummy coded and categorized as employed full-time, enrolled in additional education, and neither employed nor enrolled. The independent variables used for analysis in questions two, three, and four included the responses to the eight Likert-scale questions that asked students to rate their level of agreement from 1 to 5 for each quality item presented. The frequencies for each quality item were also reported in the analysis.

Demographic frequencies for the sample, HIP participation, and FDOs are presented in Chapter 4. The results of the analysis for research questions one, two, three and four are also reported in chapter 4.

Chapter 4

Results

Chapter 4 presents the results of the research study. Statistical analysis was used to highlight demographic information regarding the topic and answer the research questions. Tables were utilized to provide visualization of the findings of the study.

This correlational study explored the relationship between the high-impact practices of internship, study abroad, and undergraduate research and the first destination outcomes of liberal arts graduates. The dependent variable consisted of three categories labeled as enrolled in additional education, full-time employment, and neither enrolled in additional education nor employed full-time. The independent variables for the first part of the study were participation in the aforementioned HIPs. The second part of the study examined the quality associated with HIP participation. Descriptive statistics were also employed to further connect the variables in the study.

Sample

The sample was generated from a secondary data source at a large, public research institution in the southeastern United States. There were 568 students included in the sample (see Table 1). Out of 568 students in the sample, 32.04% were male and 67.96% were female. The sample consisted of 460 white students, 41 black students, 24 Hispanic students, 8 Asian students, and 35 students that were categorized as other. Nontraditional student status as determined as those that were 25 years of age or older made up only 5.11% of the sample. The remaining 94.89% were under the age of 25 at the time of graduation therefore considered traditional students. The sample contained 144 students that were Pell eligible and 424 students that were not Pell eligible. There were 349 in-state students and 219 out-of-state students. First

generation status is defined as being the first in the family to attend college. First generation students made up 15.49% of the sample while 76.57% were not first generation and 7.92% were unknown. The sample is representative to the academic college overall at the sample institution as the data was comprised of a 99% survey response rate. The sample is representative for gender among liberal arts and sciences programs but had a higher percentage of white students and a lower percentage of Hispanic students in comparison to the population overall.

Table 1

Student Sample Demographics (n=568)

Characteristic	Frequency	Percent
Gender		
Male	182	32.04%
Female	386	67.96%
Race		
White	460	80.99%
Black	41	7.22%
Hispanic	24	4.23%
Asian	8	1.41%
Other	35	6.16%
Traditional/Nontraditional Status		
Traditional (< 25 years old)	539	94.89%
Nontraditional (> 25 years old)	29	5.11%
Pell Eligibility		
Pell Eligible	144	25.35%
Not Pell Eligible	424	74.65%
Residency		
In-state	349	61.44%
Out-of-state	219	38.56%
First Generation Status		
First Generation	88	15.49%
Not First Generation	435	76.57%
Unknown	45	7.92%

Shown in Table 2, students were placed into a major category based on the field of study in which their degree was awarded. Students who majored in communication, journalism, media studies, and public relations made up the communication category and contained 187 students. Students who majored in art, art history, music, and theatre made up the fine art category and consisted of 47 students. The humanities category was made up of 86 students who majored in English, history, philosophy, and foreign languages. Finally, the social sciences category included 248 students with majors in anthropology, economics, law and justice, political science, psychology, public administration, and sociology.

Table 2

Students by Major Category

Major	Frequency	Percent
Communication	187	32.93%
Fine Art	47	8.27%
Humanities	86	15.14%
Social Sciences	248	43.66%
Total	568	100%

HIP participation and FDOs are shown in Table 3 below. A total of 324 students completed an internship, 112 students studied abroad, and 94 students conducted undergraduate research. It was noted that 1.8% of the students in the sample participated in all three HIPs, 16.7% participated in two HIPs, 54.9% participated in at least one HIP, and 26.6% did not participate in any HIPs. The rate of participation was not included in the analysis in this study but is recommended to be included in future studies. For FDOs, the sample of 568 students included 201 that indicated they were employed full-time, 168 that claimed to be enrolled in additional education, and 199 were categorized as neither employed full-time nor enrolled in additional education.

Table 3*Frequency of HIP Participation and First Destination Outcomes (n=568)*

High-Impact Practice	Frequency	Percent
HIPs		
Internship	325	57.2%
Study Abroad	112	19.7%
Undergraduate Research	95	16.7%
Rate of Participation in HIPs		
Participation in all 3 HIPs	10	1.8%
Participation in 2 HIPs	95	16.7%
Participation in 1 HIP	312	54.9%
No participation in HIPs	151	26.6%
FDOs		
Full Time Employment	201	35.4%
Enrollment in Additional Coursework	168	29.6%
Neither Employed nor Enrolled	199	35%

Demographics

Table 4 shows the demographic variables and how they describe students' participation in HIPs. The percentages are calculated to show the percentage of each variable in relation to the total sample for that variable. Females are participating in HIPs at a higher rate than males. In the sample, 60.88% of females had an internship while only 48.9% of males interned. A higher percentage of students that identify as Asian (62.5%) completed internships, while a higher percentage of black students (19.51%) completed undergraduate research. Traditional age students outpaced the nontraditional students in participation across all three HIPs. Only 7.64% of Pell eligible students completed study abroad programs compared to 23.82% of non-Pell eligible students. Similarly, out-of-state students (28.77%) participated in study abroad more often than in-state students (14.04%). The percentage of first-generation students versus non-first-generation students were compatible across all three HIPs. Various majors saw differences in participation. Communication majors participated in internships at a rate of 97.86%. This

higher percentage is attributed to the fact that students in this major category are required to complete an internship to meet graduation requirements. While these students had a high rate of participation in internships, very few (1.6%) conducted undergraduate research. Students in the social sciences participated in undergraduate research (31.05%) more often than other majors, however, they had the lowest participation in study abroad (15.73%) among the major categories.

Table 4*Demographics for Student HIP Participation (N=568)*

Characteristics	Internship		Study Abroad		Undergraduate Research	
	n=324	57.04%	n=112	19.72%	n=94	16.55%
Gender						
Male (n=182)	89	48.9%	18	9.89%	20	10.99%
Female (n=386)	235	60.88%	94	24.35%	74	19.17%
Race						
White (n=460)	273	59.35%	96	20.87%	77	16.74%
Black (n=41)	21	51.22%	3	7.32%	8	19.51%
Hispanic (n=24)	11	45.83%	5	20.83%	3	12.5%
Asian (n=8)	5	62.5%	1	12.5%	1	12.5%
Other (n=35)	14	40%	7	20%	5	14.29%
Traditional/Nontraditional Status						
Traditional (< 25 years old) (n=539)	315	58.44%	108	20.03%	90	16.7%
Nontraditional (> 25 years old) (n=29)	9	31.03%	4	13.79%	4	13.79%
Pell Eligibility						
Pell Eligible (n=144)	77	53.47%	11	7.64%	30	20.83%
Not Pell Eligible (n=424)	247	58.25%	101	23.82%	64	15.09%
Residency						
In-state (n=349)	192	55.01%	49	14.04%	61	17.48%
Out-of-state (n=219)	132	60.27%	63	28.77%	33	15.07%
First Generation Status						
First Generation (n=88)	50	56.82%	14	15.90%	15	17.05%
Not First Generation (n=435)	257	59.08%	90	20.69%	74	17.01%
Unknown (n=45)	17	37.77%	8	17.78%	5	11.11%
Major Category						
Communication (n=187)	183	97.86%	41	21.93%	3	1.6%
Fine Art (n=47)	12	25.53%	13	27.66%	4	8.51%
Humanities (n=86)	32	37.21%	19	22.09%	10	11.63%
Social Sciences (n=248)	97	39.11%	39	15.73%	77	31.05%

Table 5 shows the demographic variables and how they describe the first destination of the liberal arts graduates in the sample. The percentages are calculated to show the percentage of each variable in relation to the total sample for that variable. A higher percentage of females are both employed full-time (36.01%) and enrolled in additional education (34.07%), while males have a higher percentage of neither being employed full-time nor enrolled in additional education (39.56%). Students across races are enrolled in additional education at similar rates, however, black students and students in the other category are not employed full-time as often as students from the white, Hispanic, and Asian categories. Full-time employment was a consistent outcome for traditional (35.44%) and non-traditional (34.48%) students, while enrollment in additional education was vastly different for traditional (30.98%) and non-traditional (3.45%) students. Pell eligible students lagged behind in employment (32.64%) and education (27.78%) when compared to the non-Pell-eligible students (36.32% and 30.19%). In the sample, out-of-state students were employed full-time 10% more than in-state students. First generation students were slightly ahead in the employment category but were around 12% behind in the education category when compared to students that are not first generation. Students majoring in communication related programs were more likely to be employed (48.66%), while students majoring in the social sciences were more likely to be enrolled in additional education (43.15%). Nearly 50% of students in fine arts related programs were neither employed full-time nor enrolled in additional education.

Table 5*Demographics for First Destination Outcomes*

Characteristics	Employment		Education		Neither	
	n=201	35.39%	n=168	29.58%	n=199	35.04%
Gender						
Male (n=182)	62	34.07%	48	26.37%	72	39.56%
Female (n=386)	139	36.01%	120	31.09%	127	32.9%
Race						
White (n=460)	171	37.17%	133	28.91%	156	33.91%
Black (n=41)	11	26.83%	12	29.27%	18	43.9%
Hispanic (n=24)	12	50%	7	29.16%	5	20.83%
Asian (n=8)	3	37.5%	2	25%	3	37.5%
Other (n=35)	4	11.43%	14	40%	17	48.57%
Traditional/Nontraditional Status						
Traditional (< 25 years old) (n=539)	191	35.44%	167	30.98%	181	33.58%
Nontraditional (> 25 years old) (n=29)	10	34.48%	1	3.45%	18	62.07%
Pell Eligibility						
Pell Eligible (n=144)	47	32.64%	40	27.78%	57	39.58%
Not Pell Eligible (n=424)	154	36.32%	128	30.19%	142	33.49%
Residency						
In-state (n=349)	111	31.81%	105	30.09%	133	38.11%
Out-of-state (n=219)	90	41.1%	63	28.77%	66	30.14%
First Generation Status						
First Generation (n=88)	34	38.64%	18	20.46%	36	40.91%
Not First Generation (n=435)	157	36.09%	140	32.18%	138	31.72%
Unknown (n=45)	10	22.22%	10	22.22%	25	55.56%
Major Category						
Communication (n=187)	91	48.66%	24	12.83%	72	38.5%
Fine Art (n=47)	15	31.91%	9	19.15%	23	48.94%
Humanities (n=86)	25	29.07%	28	32.56%	33	38.37%
Social Sciences (n=248)	70	28.23%	107	43.15%	71	28.63%

Research Questions

The overall purpose of the study was to examine the relationship between participation in high-impact practices and first destination outcomes of college graduates majoring in liberal arts fields. The analysis for each research question is presented in this section.

Research Question One

What is the relationship between participation in high-impact practices (internship, study abroad, and undergraduate research) and first destination outcomes (full-time employment, enrollment in additional coursework, neither full-time employment nor enrollment in additional coursework) for liberal arts students?

Multinomial regression analysis was used to investigate the relationship between HIP participation and FDOs. Table 6 shows the likelihood ratio tests indicating that the full model represents a significant improvement over the null model ($p < .001$). When each individual independent variable was tested against the model, it was found that only internship ($p = .003$) and undergraduate research ($p = .001$) significantly improved the null model. The goodness-of-fit tests were non-significant thus indicating that the model is a good fit.

Table 6

Multinomial Regression Analysis Model Evaluation RQ1

Likelihood Ratio Tests	Chi-Square	df	Sig
Overall Model Evaluation	30.817	6	.000
Internship	11.492	2	.003
Study Abroad	3.787	2	.151
Undergraduate Research	13.106	2	.001

The multinomial regression analysis compared the FDO of education and the FDO of employment to the category of neither. The test found a significant relationship ($p = .006$) between students that participated in undergraduate research and are planning to enroll in

additional education upon graduation when compared to those students that are neither employed full time nor enrolled in additional education. The test also indicated a significant relationship ($p=.003$) between students that completed an internship and are employed full time after graduation when compared to those students that are neither employed full time nor enrolled in additional education.

Table 7 shows that students who participated in undergraduate research are 2.119 times more likely ($p=.006$) to enroll in additional education than to not be employed nor enrolled. The table further shows that students who participated in study abroad were 1.677 times more likely to enroll in education, although that result was not statistically significant ($p=.053$). With an odds ratio of approximately 1 (.999), the odds of enrolling in additional education did not differ for students with and without internships.

Table 7

Relationship Between HIP Participation and FDO of Enrollment in Additional Education^a

FDO: Enrollment in Additional Education	B	df	Sig	Exp(B)
Internship	-.001	1	.994	.999
Study Abroad	.517	1	.053	1.677
Undergraduate Research	.751	1	.006	2.119

^aThe reference category is: Neither

Table 8 shows that students who completed an internship are 1.862 times more likely ($p=.003$) to be employed full-time after graduation than students who had not completed internships. Additionally, although not statistically significant, it was found that students participated in study abroad were more likely to obtain full-time employment while those who completed undergraduate research were less likely.

Table 8*Relationship Between HIP Participation and FDO of Full-Time Employment^a*

<i>FDO: Full-Time Employment</i>	<i>B</i>	<i>df</i>	<i>Sig</i>	<i>Exp(B)</i>
Internship	.622	1	.003	1.862
Study Abroad	.220	1	.404	1.246
Undergraduate Research	-.203	1	.509	.816

^aThe reference category is: Neither**Research Question Two**

Is there a relationship between the self-reported quality of internship experience and the first destination outcomes for liberal arts students?

Although the overall relationship between the quality variables for internship participation and the pursuit of additional education were not significant, there is a positive relationship present. With an odds ratio of 1.309 for the average quality rating, for every 1 point increase in average quality, the odds that a liberal arts graduate enrolls in additional education after graduation increases by 1.309 times when compared to the reference category (see Table 9). Similarly, the relationship between internship quality and full-time employment was positive, although it was not significant. With an odds ratio of 1.299 for the average quality rating, for every 1 point increase in average quality, the odds that a liberal arts graduate is employed full-time after graduation increases by 1.299 times when compared to the reference category (see Table 9).

Table 9*Average Internship Quality and First Destination Outcomes^a*

<i>First Destination Outcome</i>	<i>B</i>	<i>df</i>	<i>Sig</i>	<i>Exp(B)</i>
Enrollment in Additional Education	.269	1	.215	1.309
Full-Time Employment	.261	1	.170	1.299

a. The reference category is: Neither

The internship quality item means are shown in Table 10. Indicated with a mean over 4.0, students rated most of the quality items very high, with the majority responding they somewhat agree or strongly agree with each item. A slightly lower rating was given for the item associated with interaction with faculty and peers during the experience, although it was still over 4.0. Also, many students rated the item that asks whether they orally presented about the experience, as strongly disagree or somewhat disagree resulting in a mean of 2.78.

Table 10

Internship Quality Items

Item	Mean	Standard Deviation
Expectations (n=324)	4.55	.814
Effort (n=323)	4.72	.625
Interaction (n=323)	4.22	1.175
Diversity (n=324)	4.57	.741
Feedback (n=322)	4.40	.972
Reflection (n=323)	4.41	1.00
Application (n=324)	4.72	.694
Presentation (n=324)	2.78	1.632

Table 11 shows the results of the multinomial logistic regression analysis for the internship quality items and the FDO of enrolling in additional education. The quality item that indicates the interaction between students and their faculty and peers had a statistically significant relationship ($p=.019$). Students that rated interaction as higher quality were 1.484 times more likely to enroll in additional education than those who rated it lower. Although not significant, the quality items of expectations and diversity also showed positive correlations. Students that agreed they had appropriately high performance expectations during the internship experience were 1.352 times more likely to enroll in additional education, while students that agreed they were exposed to people and/or settings unfamiliar to them were 1.18 times more likely to enroll in additional education.

Table 11*Internship Quality Items and Enrollment in Additional Education^a (n=319)*

Item	B	df	Sig	Exp(B)
Expectations	.301	1	.379	1.352
Effort	-.228	1	.584	.796
Interaction	.395	1	.019	1.484
Diversity	.165	1	.490	1.180
Feedback	-.019	1	.938	.981
Reflection	-.056	1	.820	.946
Application	-.200	1	.567	.819
Presentation	-.101	1	.327	.904

^aThe reference category is: Neither

Table 12 shows the results of the multinomial logistic regression analysis for the internship quality items and the FDO of full-time employment. None of the quality items were statistically significant, however several items had a positive correlation with full-time employment. Students that reported high performance expectations higher related to the internship experience were 1.46 times more likely to be employed full-time than those who rated expectations lower. The quality items of exposure to diversity and the opportunity to present results had similar odds with ratios of approximately 1.11. Lastly, students that indicated they received constructive feedback had a 1.287 times greater chance of being employed full-time after graduation.

Table 12*Internship Quality Items and Full-Time Employment^a (n=319)*

Items	B	df	Sig	Exp(B)
Expectations	.378	1	.204	1.460
Effort	-.545	1	.204	.580
Interaction	-.004	1	.976	.996
Diversity	.104	1	.621	1.110
Feedback	.252	1	.260	1.287
Reflection	-.047	1	.830	.954
Application	-.198	1	.523	.821
Presentation	.107	1	.256	1.113

^aThe reference category is: Neither**Research Question Three**

Is there a relationship between the self-reported quality of study abroad experience and the first destination outcomes for liberal arts students?

The relationship between the quality variables for study abroad participation and the pursuit of additional education were also not significant, but there is a positive relationship present. With an odds ratio of 1.011 for the average quality rating, for every 1 point increase in average quality, the odds that a liberal arts graduate enrolls in additional education after graduation increases by 1.011 times when compared to the reference category (see Table 13). Again, the relationship between study abroad quality and full-time employment was positive, although it was not significant. With an odds ratio of 1.837 for the average quality rating, for every 1 point increase in average quality, the odds that a liberal arts graduate is employed full-time after graduation increases by 1.837 times when compared to the reference category (see Table 13).

Table 13*Average Study Abroad Quality and First Destination Outcomes^a*

First Destination Outcome	B	df	Sig	Exp(B)
Enrollment in Additional Education	.011	1	.969	1.011
Full-Time Employment	.608	1	.100	1.837

^aThe reference category is: Neither

The study abroad quality item means are shown in Table 14. Indicated with a mean over 4.0, students rated most of the quality items very high, with the majority responding they somewhat agree or strongly agree with each item. A slightly lower rating was given for the item associated with constructive feedback, although it was still over 4.0. Also, more students rated the item that asks whether they orally presented about the experience, as strongly disagree or somewhat disagree resulting in a mean of 3.31.

Table 14*Study Abroad Quality Items*

Item	Mean	Standard Deviation
Expectations (n=112)	4.44	.918
Effort (n=112)	4.59	.844
Interaction (n=112)	4.63	.881
Diversity (n=112)	4.71	.728
Feedback (n=112)	4.18	1.202
Reflection (n=112)	4.32	1.076
Application (n=112)	4.46	.929
Presentation (n=112)	3.31	1.605

Table 15 shows the results of the multinomial logistic regression analysis for the study abroad quality items and the FDO of enrolling in additional education. None of the quality items related to study abroad and the FDO of enrolling in additional education were statistically significant. However, several items, including effort required during the experience, interaction

with faculty and peers, opportunities for reflection, and an opportunity to present about the experience exhibited positive correlations. Students that indicated appropriately high effort was required over an extended period of time during the experience were 1.228 times more likely to enroll in additional education. With an odds ratio of 1.548 higher interaction with faculty and peers was the most predictive quality item for the FDO of additional education. Students that were given opportunities for reflection ($Exp(B)=1.297$) and an opportunity to present about their experience ($Exp(B)=1.108$) were also more likely to enroll in additional education

Table 15

Study Abroad Quality Items and Enrollment in Additional Education^a (n=112)

Item	B	df	Sig	Exp(B)
Expectations	-.012	1	.981	.988
Effort	.205	1	.707	1.228
Interaction	.437	1	.361	1.548
Diversity	-.429	1	.386	.651
Feedback	-.268	1	.486	.765
Reflection	.260	1	.553	1.297
Application	-.384	1	.368	.681
Presentation	.103	1	.555	1.108

^aThe reference category is: Neither

Table 16 shows the results of the multinomial logistic regression analysis for the study abroad quality items and the FDO of full-time employment. The quality item related to the effort required over an extended period of time was statistically significant for the FDO of full-time employment. The negative coefficient of *B* indicated that if the study abroad required effort over an extended period of time, students were much less likely to be employed full-time. Although not significant, nearly all the quality items for study abroad were positively correlated to the FDO of full-time employment. The highest predictor was interaction with faculty and peers meaning students that had indicated interaction with faculty and peers were 2.748 times more likely to be employed full-time. Students that reported receiving constructive feedback were

2.121 times more likely to be employed full-time, and students that reported exposure to diversity were 1.216 times more likely to be employed full-time.

Table 16

Study Abroad Quality Items and Full-Time Employment^a (n=112)

Item	B	df	Sig	Exp(B)
Expectations	.161	1	.798	1.174
Effort	-1.638	1	.013	.194
Interaction	1.011	1	.133	2.748
Diversity	.195	1	.753	1.216
Feedback	.752	1	.144	2.121
Reflection	.169	1	.764	1.184
Application	-.474	1	.360	.623
Presentation	.160	1	.362	1.174

^aThe reference category is: Neither

Research Question Four

Is there a relationship between the self-reported quality of undergraduate research experience and the first destination outcomes for liberal arts students?

Like the other two HIPs, the relationship between the quality variables for undergraduate research participation and the pursuit of additional education were not significant, however, there is a positive relationship present. With an odds ratio of 1.011 for the average quality rating, for every 1 point increase in average quality, the odds that a liberal arts graduate enrolls in additional education after graduation increases by 1.011 times when compared to the reference category (see Table 17). The relationship between undergraduate research quality and full-time employment was also positive, although it was also not significant. With an odds ratio of 1.199 for the average quality rating, for every 1 point increase in average quality, the odds that a liberal arts graduate is employed full-time after graduation increases by 1.199 times when compared to the reference category (see Table 17).

Table 17*Overall Undergraduate Research Quality and First Destination Outcomes^a*

First Destination Outcome	B	df	Sig	Exp(B)
Enrollment in Additional Education	.011	1	.974	1.011
Full-Time Employment	.182	1	.686	1.199

^aThe reference category is: Neither

The undergraduate research quality item means are shown in Table 18. Students rated most of the quality items very high, with the majority responding they somewhat agree or strongly agree with each item. The highest mean ($\mu=4.65$) for the quality items was for the interaction with faculty and peers, while the lowest mean ($\mu=3.40$) was for the quality item associated with the opportunity for students to present about their experience.

Table 18*Undergraduate Research Quality Items*

Item	Mean	Standard Deviation
Expectations (n=94)	4.57	.695
Effort (n=93)	4.56	.840
Interaction (n=92)	4.65	.718
Diversity (n=92)	4.41	.951
Feedback (n=93)	4.37	.953
Reflection (n=93)	4.31	.978
Application (n=93)	4.46	.916
Presentation (n=93)	3.40	1.688

Table 19 shows the results of the multinomial logistic regression analysis for the undergraduate research quality items and the FDO of enrolling in additional education. The quality item that indicates interaction between students and their faculty and peers had a statistically significant relationship ($p=.048$). Students that rated interaction as higher were 2.878 times more likely to enroll in additional education. Although not significant, students that rated

performance expectations higher during the experience were 2.752 times more likely to enroll in additional education. Exposure to diversity and a real-world application to the experience had positive correlations but only slightly increased students' odds of enrolling in additional education.

Table 19

Undergraduate Research Quality Items and Enrollment in Additional Education^a (n=92)

Item	B	df	Sig	Exp(B)
Expectations	1.012	1	.131	2.752
Effort	-.694	1	.230	.500
Interaction	1.057	1	.048	2.878
Diversity	.113	1	.777	1.119
Feedback	-.562	1	.318	.570
Reflection	-.442	1	.337	.643
Application	.112	1	.803	1.118
Presentation	.004	1	.980	1.004

^aThe reference category is: Neither

Table 20 shows the results of the multinomial logistic regression analysis for the undergraduate research quality items and the FDO of full-time employment. High performance expectations during the experience, effort required over an extended period of time, and constructive feedback during the experience were the quality items statistically significant for the FDO of full-time employment. With a significance of $p=.033$, students that agreed they had appropriately high-performance expectations during participation, they were 6.599 times more likely to be employed full-time after graduation. The effort and feedback items had negative coefficients. Students that indicated effort was required over an extended period of time and they were provided constructive feedback were less likely to be employed full-time. There were several other positive correlations, however, they were not significant. The opportunity to reflect on learning had 1.738 greater odds and application to the real-world had 1.560 greater odds.

Additionally, the interaction with faculty and peers made students 3.348 times more likely to be employed full-time.

Table 20

Undergraduate Research Quality Items and Full-Time Employment^a (n=92)

Item	B	df	Sig	Exp(B)
Expectations	1.887	1	.033	6.599
Effort	-1.522	1	.028	.218
Interaction	1.208	1	.104	3.348
Diversity	.209	1	.695	1.232
Feedback	-1.635	1	.015	.195
Reflection	.553	1	.424	1.738
Application	.445	1	.435	1.560
Presentation	.024	1	.912	1.024

a. The reference category is: Neither

Summary

This study was designed to better understand the relationship between participation in HIPs and FDOs for students graduating from liberal arts disciplines. This study also sought to explore the quality items that describe students' experiences as they relate to HIPs and FDOs. Statistical significance was found between the participation in internships and the first destination of employment. Statistical significance was also found between the participation in undergraduate research and the first destination of enrollment in additional coursework. The overall quality items associated with HIP participation had a positive correlation, but none were significant. When looking at each quality item separately, there was statistical significance between the interaction with faculty and peers for both internship and undergraduate research and the FDO of enrolling in additional education. Statistical significance also occurred between the quality item, effort required over an extended period of time for study abroad and undergraduate research and the FDO of full-time employment. Lastly, the receipt of constructive

feedback during the experience was statistically significant between undergraduate research and full-time employment.

Chapter 5

Discussion, Recommendations, and Conclusions

Chapter 5 provides a summary of the findings of the study including discussion for each of the research questions. The chapter also includes the limitations of the study, implications for practice, and concluding thoughts. Lastly, recommendations for future research opportunities are presented.

Discussion

Research utilizing the phrase “high-impact practices” (HIPs) has only been around since 2007 (Kuh, 2008). To contribute to the literature for HIPs, this study focused on how HIP participation may impact first destination outcomes (FDOs) specifically for liberal arts students. Research addressing the outcomes of liberal arts graduates is important because liberal arts programs have seen declining enrollments in past years (Nicholas, 2018). To ensure students pursuing liberal arts programs find value in their degrees and find success upon graduation, advisors, faculty, and administrators must stay abreast of those practices that have the greatest impact on success.

Frequency data for HIP participation and FDOs were included to identify trends or details that would help inform the results. Internship participation was the highest among students in the sample, with 57% indicating they had an internship while in college. Both study abroad and undergraduate research saw less than 20% of students indicating participation. For FDOs, this group of liberal arts graduates found success upon graduation with 65% of them reporting either full-time employment or the pursuit of graduate/professional school. The remaining 35% were categorized as neither full-time employed nor pursuing additional education. They were coded this way for statistical analysis, however, that did not mean they were not successful upon

graduation. For example, some students indicated taking a gap year before graduate school, while others were planning to volunteer or work part-time.

In addition to frequency data for HIP participation and FDOs, the number of students participating in multiple HIPs was reported. This data was not used in the relationship analysis between HIPs and FDOs in this study, however, it is recommended that participation in multiple HIPs is considered in the analysis for future studies. Because it is recommended that students participate in multiple HIPs (Kuh, 2008), future research is needed to explore this dynamic in the relationship.

Demographic information related to HIP participation and FDOs was also included. There were several points of interest in this portion of the research. Participation in the HIP of undergraduate research had the least amount of variability among Pell-eligible students (20.83%) versus non Pell eligible students (15.09%), students from ethnic minorities (14.7%) versus white students (16.74%), and nontraditional students (13.79%) versus traditional students (16.7%). This might indicate that undergraduate research is more accessible to students that have been underrepresented in HIP participation. There are some cost-effective ways to engage students in undergraduate research (Snow et al., 2010), and undergraduate research often features flexible scheduling for the student as many research projects are conducted out of class and independently through faculty supervision.

While undergraduate research demonstrated little variability in participation among groups, the opposite was found when examining the HIP, study abroad. Black students (7.32%) versus white students (20.87%), Pell eligible students (7.64%) versus non Pell eligible students (23.82%), and nontraditional students (13.79%) versus traditional students (20.03%) were much less likely to study abroad than their peers. This finding may suggest that study abroad

opportunities may not be easily accessed by underrepresented groups. This finding is consistent with the narrative found by Finley and McNair (2013) where underrepresented students noted obstacles to participating in HIPs including limited time and money. Kuh (2008) demonstrated that a positive connection exists between HIP participation and GPA/persistence for all students, but for underrepresented students it shows a compensatory effect which means these students make up more ground than their peers academically when participating in meaningful educational experiences. Because of these findings, Kuh (2008) discussed the importance of making HIP participation accessible to all students.

Another finding in the exploration of demographics was that females at the sample institution participate in the three HIPs studied at a rate of around 10% higher than males. The NSSE (2018) reported that HIP participation did not vary by gender. This difference could be attributed to the differences in the NSSE including all majors in the study and this study focusing on liberal arts. Lastly, out-of-state students (28.77 %) participated in study abroad at double the rate of in-state students (14.04%). This finding may be credited to the fact that some study abroad programs at the sample institution acquire the same costs for students regardless of residency status. Often, that cost is comparable to the out-of-state tuition rates these students are accustomed to paying thus making study abroad more accessible financially.

Demographic information for FDOs also provided information for discussion. Students from groups including first generation (40.91%), Pell eligible (39.58%), and nontraditional (62.07%) were more likely to be categorized as neither employed full-time nor pursuing additional education after graduation. This may imply that institutions need to intervene to help these students find success, and HIP participation may be an avenue for institutions to pursue to increase the likelihood of successful graduation outcomes for these students. Because full-time

employment and the pursuit of additional education are positively correlated with HIP participation, there is an occasion for institutions to create opportunities for students (Miller et al., 2018).

Research Question One

Research question one explored the relationship between HIPs and FDOs among liberal arts graduates. The overall model indicated a significant relationship between HIP participation and FDOs for liberal arts graduates. This result indicates that participation in HIPs while in college, have some connection to graduate outcomes. This finding is consistent with previous research (Miller et al., 2018), where they found that participation in internships, leadership roles, study abroad, research with faculty, and capstone projects had significant relationships to the outcomes of employment and graduate school. Additionally, Miller et al. (2018) found that students that completed internships were more likely to seek employment and students that completed research experiences were planning to attend graduate school. The current study likewise found significant relationships between internships and employment and undergraduate research and graduate or professional school. Study abroad was positively related to the FDO of education, thus suggesting an importance. Tillman (2011) mentioned the importance of students unpacking their abroad experiences in order to highlight the skills that were developed and to create a narrative that articulates the value of the experience. The guide was written in the context of job marketability, but it also has applicability for graduate and professional school admissions processes (Tillman, 2011). These same narratives can be used by students to market their abilities for graduate study in personal statements, admission essays, and admission interviews.

In addition to the significance of the general relationship between HIPs and FDOs, there were observations of interest related to student major. Students pursuing different majors in the liberal arts saw differences in FDOs. Students in communication related fields were most likely to be employed full-time (48.88%) when compared to fine arts students (31.91%), humanities students (29.07%), and social sciences students (28.23%). While students in the social sciences were more likely to pursue graduate/professional school (43.15%) when compared to humanities students (32.56%), fine arts students (19.15%), and communication students (12.83%). Those majoring in the fine arts were more likely to be neither employed nor pursuing education (48.94%). These outcomes are supported by the findings in research question one as communication students had the highest participation in internships (97.86%), social sciences students had the highest participation in undergraduate research (31.05%). Additionally, fine arts students had the lowest participation in HIPs in all three categories, 25.53% completed internships, 27.66% participated in study abroad, and 8.51% in undergraduate research.

Research Question 2

The literature related to the quality elements of HIPs introduced by Kuh and O'Donnell (2013) is limited (Kinzie et al., 2020). Therefore, research question two explored the relationship of internship quality and FDOs. Students included in this study were asked to indicate their level of agreement among eight items that represented the eight quality characteristics of HIPs identified by Kuh and O'Donnell (2013). These characteristics include appropriately high expectations, investment of time and effort by students, interactions with faculty and peers, experience with diversity, constructive feedback, opportunities for reflection, real-world application, and public demonstration of competence. Students included in this study generally agreed or strongly agreed that these characteristics were present in their experiences. This is

demonstrated by an average rating of 4.30 on a 5-point scale. The only characteristic that saw a rating below 4.0 was that of presentation (2.78). This suggests that many students do not get the opportunity to orally or publicly present about their experience.

The results of the multinomial logistic regression for the relationship between internship quality and the FDO of additional education only yielded one statistically significant characteristic. The characteristic that indicates students interacted with faculty and their peers was statistically significant when related to the pursuit of additional education. This means that students that rated interaction higher were 1.484 times more likely to have pursued additional education than those that did not rate it as high. This suggests that a deeper connection with faculty and peers is influential in graduate and professional education. Because student-advisor relationship is of fundamental importance in doctoral persistence (Earl-Novell, 2006), it stands to reason that faculty connection at the undergraduate level may lead students toward the pursuit of further education.

Although the other quality items were not of statistical significance, it can be noted that students that had appropriately high expectations in their internships were also more likely to pursue graduate school and full-time employment than their peers that rated that quality item lower. This suggests that creating internship opportunities where students are held to high standards have the potential to provide students with knowledge and skills needed to be successful in their next stage of life. Research previously conducted in the area of quality in relation to internships have shown that the areas of skill training, meaningful work, and work autonomy can also influence job search success (Gamboa et al., 2020; Pan et al., 2018).

Research Question 3

Research question three explored the relationship between the quality characteristics of the HIP of study abroad and the FDOs of full-time employment and enrollment in additional education. Similar to the findings related to internships, students that participated in study abroad generally agreed or strongly agreed with all the quality characteristics being present in their experience. This agreement was demonstrated by an average of 4.33 on a 5-point scale. Students' average rating for the characteristic associated with orally or publicly presenting about the experience was rated the lowest at 3.31. Because journal writing has been seen as a versatile and popular learning activity for study abroad (Duke, 2000), perhaps, students participating in study abroad at the sample institution spend more time reflecting in writing rather than presenting to others.

There were no statistically significant quality items for study abroad and the pursuit of additional education, however, the item that indicates that the study abroad required effort over an extended period of time was statistically significant to the outcome of employment. The negative coefficient ($B=-1.638$) reveals that students who indicated effort was required over an extended period of time were less likely to be employed full-time than those that had less agreement to the characteristic of effort. Perhaps students that indicated effort was required over an extended period of time pursued alternate outcomes rather than employment. There was a positive relationship between the effort variable and pursuing additional education ($B=1.228$).

Although not significant, there were items that positively correlated to the FDOs and increased students' likelihood for these outcomes. The quality characteristic of interaction with faculty and peers had a positive connection to both employment and education. Students that indicated they interacted with faculty and peers while abroad were 1.548 times more likely to

enroll in additional education and 2.748 times more likely to be employed full-time than those that rated that quality item as lower. This positive connection aligns with findings from Trolian et al. (2021). They found that student-faculty interaction was positively associated with five measures of professional success that examined the values and outcomes students regard as important to work.

Research Question 4

Research question four focused on participation in undergraduate research and found similar results between the quality characteristics and the FDOs of full-time employment and enrollment in additional education. Students generally agreed or strongly agreed with all the quality characteristics being present in their experience. This agreement is demonstrated by an average of 4.34 on a 5-point scale. Students' average rating for the characteristic associated with orally or publicly presenting about the experience was rated the lowest at 3.40.

For undergraduate research, the quality item for interaction between faculty and peers was statistically significant in regard to enrolling in additional education, thus indicating students who rated the item for interaction with faculty higher were 2.878 times more likely to enroll in additional education than those that rated that item lower. Hathaway et al. (2002) explored whether participation in undergraduate research influenced students' pursuit of additional education and the use of faculty for job search recommendations. They found that participation in undergraduate research was significantly related to the pursuit of graduate and professional school and the use of faculty for job search recommendations. Therefore, the result for interaction with faculty and peers and the pursuit of education is not surprising.

In the analysis regarding undergraduate research quality and full-time employment, multiple significant relationships were identified. Students that rated the quality item indicating

high performance expectations higher were 6.599 times more likely to be employed full-time than those students that rated the item lower. This is a large odds ratio and indicates a strong relationship. Effort required over an extended period of time and receiving constructive feedback were also statistically significant to the FDO of employment. Both of these items had negative coefficients suggesting students were less likely to be employed full time if they rated these items higher. Perhaps students pursued graduation outcomes other than full-time employment when they indicated their experience required effort over time and that they received constructive feedback.

It is worthwhile to note that interaction with faculty and peers is also positively connected to undergraduate research and employment. Students that rated interaction with faculty and peers were 3.348 times more likely to be employed full time than those that rated that item lower. Another positive relationship was the opportunity to reflect on the experience. Students were 1.738 times more likely to be employed full-time if they rated the reflection quality characteristic higher. Bradberry and De Maio (2019) wrote that in experiential learning, reflection on the experience is critical to the learning.

Implications for Practice

Understanding demographic variables related to the study presents opportunities for colleges and universities to promote engagement and create access for HIP participation while in college. It also opens the door for conversation as to career development for students that are seeing lower placement into optimal first destination outcomes. Perhaps the creation of a career development course that incorporates reflective writing (Stebbleton et al., 2020) could assist students in turning their experiences into marketable narratives. Where career development courses already exist, a more integrative approach to career development may be beneficial

(Bridgstock et al., 2019). This approach is collaborative and provides benefits for the student, however, it is very complex and challenging as it involves curriculum, policy, and culture changes.

Understanding the relationship between HIPs and FDOs provides professional advisors, faculty mentors, and administrators with information to help students meet their primary goals for attending college. Miller et al. (2011) states,

“as colleges and universities prepare current students for future opportunities and compete for potential incoming students, they are being called upon to quantifiably identify whether students are engaging in educational practices that are preparing them for a dynamic workplace and for engagement in an increasingly diverse world” (p. 53).

This study provides quantitative evidence as to the educational practices at the sample institution that correlate to desired outcomes for liberal arts graduates. In addition, this study better equips advisors to recommend practices that could enhance students’ preparation for certain career and educational goals.

Kinzie et al. (2020) suggested that it may not be feasible in practice to expect all eight of the HIP quality elements to be represented in every HIP. Therefore, it stands to reason that HIP facilitators should focus on those quality elements that are most likely to connect positively to desired outcomes. Because interaction with faculty and peers was positively related to all HIPs and both FDOs, this study suggests that interaction is an element important regardless of student experience and desired outcome.

Limitations

This study had several limitations. The study was conducted utilizing a sample from a large southeastern public research university. Because this sample was limited to this one

institution, the results may not be representative of the population as a whole. In addition, the sample consisted of predominately white, traditional age college students which further limits the ability to generalize results to the overall population. However, the surveys could be duplicated at other institutions to conduct research relevant to that institution.

Another limitation of the study was the effect of the COVID-19 pandemic on student experience (Aucejo et al., 2020), as well as uncertainty about their futures (Hawley et al., 2021). Since the start of the pandemic, students have been affected by restrictions on global travel and in study abroad opportunities (Martel, 2020). Internships and outcomes were also affected. Aucejo et al. (2020) indicated that around 40% of students included in their study lost a job, internship, or a job offer. Based on these findings, students in the current study likely experienced a similar impact. Not all students in the dataset were impacted by COVID-19. Because this study utilized the fall 2019 and spring 2020 data collection periods, the fall 2019 graduates would not have experienced HIP interruptions due to COVID-19 but may have been impacted during the six months post-graduation collection for FDOs.

A limitation in the research of HIPs in higher education includes students' self-selecting into educational experiences. Zilvinskis (2019) noted the difficulty in indicating any causality in HIP research due to the self-selection into these experiences. Furthermore, the question was raised whether "students have higher outcomes because of their participation in HIPs or [whether] students with higher outcomes also choose to participate in these experiences" (Zilvinskis, 2019, p. 705). Miller et al. (2018) also noted a limitation of self-selection based on the assumption that students may choose to participation in specific HIPs based on their intended outcome.

The data collected for this study was self-reported by students. In particular, the self-reported quality items are interpreted with caution. The quality of the experience was rated by the student and therefore was based on the students' perception of the experience. There are other quality factors that could be considered in future analysis such as the length of time or amount of hours spent in the experience.

Lastly, the items that measured quality for the HIPs studied, consisted of only one question per quality factor. In comparison to single questions, the use of multiple items are expected to be more reliable and valid (Willits et al., 2016). In this study, Likert scale data was used to perform statistical analysis to measure relationships between variables. Some researchers disagree with the use of Likert items as interval or continuous data (Chimi & Russell, 2009; Lubke & Muthén, 2004).

Recommendations for Future Research

Research related to HIPs has become more prolific in recent years, but there are still many facets of the topic yet to be explored. The purpose of this study was to contribute to the existing literature by examining the relationship between participation in HIPs and FDOs among liberal arts graduates. However, to address study limitations and to build upon the topic, future research is needed.

Kuh (2008) recommended that students should participate in at least two HIPs, one in the first year and one later related to program of study. He further posited that ideally, students would have a HIP experience every year. This recommendation presents an opportunity for future researchers to explore connections between multiple HIP participation as it relates to FDOs. It was acknowledged that students included in this study may have participated in more than one HIP, therefore a follow-up study is recommended to account for participation in

multiple HIPs. Additionally, other HIPs such as participation in first year seminars or learning communities could be explored along with the HIPs in the present study.

This study was the first to focus on HIPs and students specifically graduating in liberal arts disciplines. While most studies related to liberal arts focus on small liberal arts colleges (Gansemer-Topf et al., 2014; Hawkins, 1999; Stimpert, 2004), this study focused on a liberal arts college housed in a large research institution. This difference presents an opportunity for a comparison study. Other comparison research opportunities could consist of exploring differences among disciplines like liberal arts and business or liberal arts and STEM fields. Additionally, this study could be replicated at other institutions and among other programs of study.

Because the quality items associated with the HIPs were self-reported and only focused on the student perception of each item, a more in-depth study related to quality is recommended. There are other quality factors that could be considered in future analysis such as the length of time or amount of hours spent in the experience, whether the experience had financial benefits to the student, faculty program design, etc.

To address the limitation with the single question quality items, a more robust HIP quality survey could be used or designed to further the research in quality HIP participation and outcomes. With the implementation of the HIP Quality Project (Kinzie et al., 2020), new quality items were recently added to the highly used NSSE thus creating more accessible data for the measurement of quality, and to provide a higher level of consistency in future HIP quality research.

Finally, a qualitative study could be implemented to further explore HIPs, FDOs and the quality of such experiences. Techniques such as focus groups could be utilized to gain a better understanding of the relationship between the variables.

Conclusions and Final Thoughts

Colleges and universities are continuously competing to attract bright students to further their education at their institutions. Because students are interested in attending college to broaden their opportunities and increase their potential upon graduation, it is important for institutions to demonstrate the value of the investment to students. This is even more of a challenge to liberal arts programs due to the myths that have been circulated about them. It has been suggested that the liberal arts are often misunderstood as to their purpose, and furthermore, students may lack the ability to articulate the value of their degrees.

In addition to the broad knowledge and skill development that come from studying the liberal arts, institutions should invest in experiential learning opportunities like HIPs that complement and enhance classroom-based learning. These HIPs should be designed with quality in mind to ensure students are meeting the learning objectives as intended. Although current research cannot demonstrate causality between HIP participation and FDOs, positive relationships do exist. Because HIPs are positively related to FDOs, advisors, career services specialists, and faculty should encourage participation. Institutions should ensure access to HIPs for students that have historically not participated in them due to time and financial restraints.

Learning through experiences like HIPs is an effective practice for young adults attending college. In addition to the participation in HIPs, students should be exposed to career development strategies like career courses and reflective writing to help them connect their learning to their desired graduation outcomes. This type of learning and development encourages

lifelong learning beyond graduation and throughout adulthood which contributes to success in work and life. The research relating to HIPs, including quality characteristics, and FDOs is important to advance the understanding of impactful educational experiences and the outcomes that may be connected.

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Appendix A

Instrument 1 - FDS

First Destination Survey

This survey is designed to collect information about your plans after graduation. It should take less than five minutes. Completion of this survey is the final pre-graduation expectation associated with the AT Hold on your account.

If you have questions about this survey, please email the Office of Academic Assessment at assess@auburn.edu.

Please visit the [University Career Center website](#) for more information on their services and resources (or call (334) 844-4744).

Which of the following **BEST** describes your **PRIMARY** plans after graduation?

- I have accepted full-time employment or will be self-employed (on average 30 hours or more per week)
- I have accepted part-time employment or will be self-employed (on average less than 30 hours per week)
- I will participate in a volunteer or service program (e.g., Peace Corps, Teach for America, mission work)
- I will serve in the U.S. Military
- I will be enrolled in additional coursework (e.g., graduate/professional study)
- I will continue to seek employment
- I will continue to seek enrollment in additional coursework (e.g., graduate/professional study)
- Not seeking employment or continuing education at this time
- Other, please describe: _____

Which service branch are you joining?

- Air Force
- Army
- Coast Guard
- Navy
- Marine Corps

What is your rank?

Which of the following best describes your employment?

- Organization/Company
- Entrepreneur
- Freelancer
- Temporary/Contract work assignment
- Postgraduate internship or fellowship
- Other, please describe: _____

Please provide the following information about your employment:

- Company/Organization's Name: _____
- City: _____
- State: _____
- Your Job Title: _____
- Expected Annual Salary (e.g., 51000) _____
- Signing Bonus (e.g., 3500) _____
- Moving or Relocation Bonus (e.g., 2000) _____
- Is your position commission based? (Yes or No): _____

Please select an occupational group, sub-group, and occupational title for your job.

Occupational group:

Occupational sub-group:

Occupational title:

▼ Management Occupations ... Military Specific Occupations ~ Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members ~ Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members, All Other

How directly is your job related to your primary major?

- Directly related
- Indirectly related
- Not related

Please provide the following information about your organization:

- Organization Name: _____
- Assignment City: _____
- Assignment State: _____
- Assignment Country: _____
- Your Role or Title: _____

Please identify the institution in which you will be enrolled.

State

Institution

▼ Alabama ... Wyoming ~ University of Wyoming

If your institution is international or not listed above, please list it here.

Please identify the degree sought:

- Doctor of Audiology
- Doctor of Dental Surgery
- Doctor of Education
- Doctor of Medical Dentistry
- Doctor of Medicine
- Doctor of Ministry
- Doctor of Nursing Practice
- Doctor of Occupational Therapy
- Doctor of Optometry
- Doctor of Osteopathic Medicine
- Doctor of Pharmacy
- Doctor of Philosophy
- Doctor of Podiatric Medicine
- Doctor of Psychology
- Doctor of Social Work
- Doctor of Veterinary Medicine
- Educational Specialist
- Graduate Certificate
- Juris Doctor
- Master of Accountancy
- Master of Aerospace Engineering
- Master of Agriculture
- Master of Applied Mathematics
- Master of Aquaculture
- Master of Arts
- Master of Arts in College Teaching

- Master of Building Construction
- Master of Business Administration
- Master of Communication Disorders
- Master of Chemical Engineering
- Master of Civil Engineering
- Master of Communication
- Master of Community Planning
- Master of Computer Science and Engineering
- Master of Design Build
- Master of Education
- Master of Electrical Engineering
- Master of Finance
- Master of Fine Arts
- Master of French Studies
- Master of Forestry
- Master of Hispanic Studies
- Master of Integrated Design and Construction
- Master of Industrial Design
- Master of Industrial and Systems Engineering
- Master of Landscape Architecture
- Master of Mechanical Engineering
- Master of Manufacturing Systems Engineering
- Master of Management Information Systems
- Master of Materials Engineering
- Master of Music
- Master of Natural Resources
- Master of Probability and Statistics

- Master of Public Administration
- Master of Real Estate Development
- Master of Science
- Master of Software Engineering
- Master of Technical and Professional Communication
- Master of Zoological Studies
- Other

Please list your degree here:

Please identify the type of degree sought:

- Master's or Educational Specialist
- Professional Doctorate (DVM, PharmD., JD, MD, etc.)
- Research Doctorate (PhD, EdD)
- Additional undergraduate coursework to qualify for industry certification (e.g., CPA Exam)
- Other, please define: _____

Please select the broad field and major of your graduate or professional study.

Broad field of study

Major

▼ Agriculture ... Visual and Performing Arts ~ Woodwind Instruments.

If the field and major of your graduate or professional study are not listed above, please list them here:

Will you have a paid assistantship or fellowship?

- Yes
- No

Please indicate the primary reason(s) you are not seeking employment or continuing education at this time:

- Pursuing a gap year
- Raising a family
- Personal circumstances
- Experiential learning opportunity
- Other, please describe:

Will you have an international residence?

- Yes
- No

Please provide your contact information after graduation.

- Street address or P.O. box number:

- City or town: _____
- Province/State/County: _____
- Postal Code: _____
- Email address (the email account you will check most often, non-Auburn.edu):

- Phone number: _____
- LinkedIn URL (www.linkedin.com/in/_____):

Please provide your contact information after graduation.

Street address: _____

City: _____

State: _____

Zip code: _____

Email address (the email account you will check most often, non-Auburn.edu):

Phone number: _____

LinkedIn URL (www.linkedin.com/in/_____):

Additional Comments

Please add any additional comments you have below:

Appendix B

Instrument 2 – CEES

Campus Engagement and Experience Survey

For best results, please use a computer to complete this survey. This survey is designed to collect information about your experiences as an Auburn University student. It should take no more than 15 minutes. Completion of this survey is one of four pre-graduation expectations associated with your UNIV-4AA0 Graduation Course and the AT Hold on your account. If you have any questions about this survey, please email the Office of Academic Assessment at assess@auburn.edu.

War Eagle!

Which of the following activities did you participate in while an Auburn University student?

Please check all that apply.

- Co-op
 - ePortfolio
 - Internship
 - Study Abroad
 - Undergraduate Research
 - None
-

Study Abroad

The next set of questions will ask you about your study abroad experience. Please answer thoughtfully as you consider your experience(s) abroad.

Please identify the specific type of international experience that best describes your time abroad.

- Co-op abroad
- Internship/consulting project abroad
- Study Abroad
- Undergraduate Research Abroad
- other _____

From the list below, please choose the type of study abroad program that best describes your experience.

- AU Faculty led program involving medical shadowing or visits to companies (in my major)
- AU Faculty led program with classes at universities and/or institutions abroad
- AU Exchange program at university abroad
- AU Service learning project abroad on non-credit program
- Non-AU program abroad with another university or program for transfer credit
- other _____

Please indicate your agreement (1 - *strongly disagree* to 5 - *strongly agree*) to the following statements about **Study Abroad**. **Hover over the highlighted "?" for an additional description or example of the statement.**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
There were appropriately high performance expectations during the Study Abroad experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effort was required over an extended period of time. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I interacted with faculty and peers while studying abroad. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was exposed to people and/or settings that were unfamiliar to me. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was provided with constructive feedback during my study abroad experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There were structured opportunities to reflect on my learning. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There was real-world application to my study abroad experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I orally presented about my study abroad experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How long was your program abroad?

- 1-2 weeks
- 3-8 weeks
- one semester
- longer than one semester

What motivated you to study abroad? (check all that apply)

- I wanted to study abroad since before I was in High School
- A faculty member at Auburn University encouraged me to study abroad
- To learn about a new culture
- to complete projects abroad in my academic major or field
- to explore other subjects not in my major that I was interested in
- to complete a minor abroad
- to complete core curriculum courses abroad
- to enhance my language skills
- to enhance my communication skills
- to experience life in another climate
- to meet experts in my field by visiting companies, medical entities in my field, expand my global network
- to meet students at universities abroad and compare best practices in my field
- to meet people like me
- to meet people that were not like me
- to learn more about people not like me

When did you study abroad?

- freshmen or sophomore year

junior or senior year

Where did you study abroad (exclude travel off of program)?

Western Europe

Asia or Australia

Africa

Centra or South America

other _____

What did you get out of your study abroad program? (check all that apply)

added an experience that made my resume stand out

added a location that made my resume stand out

added courses from an international university that made my resume stand out

completed a minor or my major abroad

grew my soft skills (such as the ability to understand cultural differences or listen more)

learned a new language or improved my current language skills

gained confidence to handle unfamiliar situations

expanded global network of friends and/or contacts in my field

provided me with opportunities to take the initiative and to handle new experiences

learn more about myself (discovered my personal brand)

received academic credit

developed a global perspective

Please indicate, by selecting all that apply, the Exchange Programs in which you participated.

- Perth, Australia
- Aalen, Germany
- Karlsruhe, Germany
- Offenburg University, Germany
- Wurzburg-Schweinfurt, Germany
- Turin, Italy
- Tainan, Taiwan
- Other _____
- n/a

Please indicate, by selecting all that apply, the Faculty-led programs in which you participated.

- Beijing and Shangxi, China
- Wurzburg-Schweinfurt, Germany
- Florence, Italy
- Pamplona, Spain
- Other _____
- n/a

Please indicate, by selecting all that apply, the Service Programs in which you participated.

- EWB - Bolivia
- EWB - Rwanda
- Other _____
- n/a

Co-op

The next set of questions will ask you about your co-op experience(s). Please answer thoughtfully as you consider your experience(s) with co-op.

How many co-op employers did you have?

- 1
- 2 or more

You indicated that you participated in two or more co-op experiences

Please indicate your agreement (1 - *strongly disagree* to 5 - *strongly agree*) to the following statements about participating in an co-op. **Hover over the highlighted "?" for an additional description or example of the statement.**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
There were appropriately high performance expectations set for the co-op. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effort was required over an extended period of time. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I interacted with faculty and peers during and/or after my co-op. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was exposed to people and/or settings that were unfamiliar to me. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was provided with constructive feedback. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There were structured opportunities to reflect on my learning. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There was real-world application for the work I was completing during my co-op. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was asked to demonstrate the learning that occurred during my co-op. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How many work terms did you complete with this employer?

- 3
- 4
- 5

6 or more

When did you participate in your co-op (select all that apply)?

- Fall, Freshman Year
 - Spring, Freshman Year
 - Summer, following Freshman Year
 - Fall, Sophomore Year
 - Spring, Sophomore Year
 - Summer, following Sophomore Year
 - Fall, Junior Year
 - Spring, Junior Year
 - Summer, following Junior Year
 - Fall Senior Year
 - Spring Senior Year
 - Summer, following Senior Year
 - Other (e.g. Fall 5th Year)
-

Please provide the following information about your co-op employer:

Employer's Name: _____

Employer's Location (e.g., New York, NY):

Most frequent work location (e.g. Auburn, AL)

Your Position Title: _____

Ending Salary: approximate hourly rate (0 if unpaid)

Have you received an offer of employment from the organization with which you completed your co-op?

Yes

No

Have you accepted or plan to accept the offer of employment?

Yes

No

ePortfolio

The next set of questions will ask you about your experience(s) with ePortfolios. For the purpose of the following survey questions, please consider ePortfolios to be professional websites that include documentation of your skills and experiences accompanied by writing that provides the context of those documents so that others can understand why you have included those examples.

Please indicate your agreement (*1 - strongly disagree to 5 - strongly agree*) to the following statements about creating an **ePortfolio**. ***Hover over the highlighted "?" for an additional description or example of the statement.***

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The expectations for my performance in the ePortfolio were appropriately high. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creating my ePortfolio required a significant investment of effort across an extended period of time. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working on my ePortfolio created opportunities for meaningful interactions with faculty and/or peers. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creating my ePortfolio gave me an opportunity to communicate what I have learned about perspectives and cultures that are different from my own. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I received feedback from faculty and/or peers while creating my ePortfolio. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working on my ePortfolio included opportunities to reflect on my learning. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are/were real-world applications for my ePortfolio. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I demonstrated the learning experienced while creating my ePortfolio by sharing it with others. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To complete my ePortfolio I (select all that apply)

- Worked on it in more than one course
- Worked on it in more than one semester
- Created different versions for different purposes
- Had opportunities to practice components (like making design choices or reflecting on my experiences) before assembling the final ePortfolio
- Got feedback from an industry representative or potential employer in my field

There were real-world applications for my ePortfolio because I used it to (select all that apply)

- demonstrate skills and experiences to potential employers
- demonstrate skills and experiences to graduate or professional schools
- record my experiences with another High Impact Practice (such as internships, study abroad, undergraduate research)
- other _____

Creating my ePortfolio gave me practical experience with (select all that apply)

- technology I might not otherwise have encountered
- making ethical choices
- visual literacy
- synthesizing my experiences
- explaining my experiences and choices to others
- considering audience and purpose
- selecting the best artifacts of my knowledge, skills and/or abilities from among many possibilities

Overall, was the experience of creating an ePortfolio meaningful to you?

Yes

No

Was completing an ePortfolio required in your major?

Yes

No

Did you participate in programs offered by Auburn's ePortfolio Project?

Yes

No

Internship

The next set of questions will ask you about your internship experience(s). Please answer thoughtfully as you consider your internship(s).

How many internships did you participate in?

- 1
- 2
- 3 or more

You indicated that you participated in more than one internship. Please respond to the next set of questions about your most relevant internship experience.

Please indicate your agreement (1 - *strongly disagree* to 5 - *strongly agree*) to the following statements about participating in an **Internship**. **Hover over the highlighted "?" for an additional description or example of the statement.**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
There were appropriately high performance expectations set for the Internship. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effort was required over an extended period of time. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I interacted with faculty and peers during and/or after my internship. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was exposed to people and/or settings that were unfamiliar to me. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was provided with constructive feedback. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There were structured opportunities to reflect on my learning. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There was real-world application for the work I was completing during my internship. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I orally presented about my internship experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please describe the amount of time you spent on your internship/work experience:

Approximate hours per week

Number of weeks

When did you participate in your internship (select all that apply)?

- Fall, Freshman Year
 - Spring, Freshman Year
 - Summer, following Freshman Year
 - Fall, Sophomore Year
 - Spring, Sophomore Year
 - Summer, following Sophomore Year
 - Fall, Junior Year
 - Spring, Junior Year
 - Summer, following Junior Year
 - Fall Senior Year
 - Spring Senior Year
 - Summer, following Senior Year
 - Other (e.g. Fall 5th Year)
-

Was your internship paid or for course credit (select all that apply)?

- paid
- credit
- neither paid nor for credit

Have you received an offer of employment from the organization with which you completed your Internship?

- yes
- no

Have you accepted or plan to accept the offer of employment?

yes

no

Please provide the following information about your employer:

Employer's Name: _____

Employer's Location (e.g. Auburn, AL):

Work site location (e.g. Auburn, AL)

Your Position Title: _____

Salary: approximate hourly rate (0 if unpaid)

Undergraduate Research

The next set of questions will ask you about your Undergraduate Research experience. Please answer thoughtfully as you consider your experience(s) with Undergraduate Research.

Please indicate your agreement (*1 - strongly disagree to 5 - strongly agree*) to the following statements about **Undergraduate Research**. ***Hover over the highlighted "?" for an additional description or example of the statement.***

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
There were appropriately high performance expectations set for my Undergraduate Research experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effort was required over an extended period of time. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I interacted with faculty and peers while participating in undergraduate research. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was exposed to people and/or settings that were unfamiliar to me. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was provided with constructive feedback. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There were structured opportunities to reflect on my learning. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There was real-world application to the work I was completing during my undergraduate research experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I orally presented about my undergraduate research experience and/or presented research completed while completing undergraduate research. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Why did you participate in Undergraduate Research? (check all that apply)

- for credit in a course offered by my department or another department
- during an internship
- as part of an Undergraduate Research Fellowship
- as a volunteer researcher
- as a student employee
- Research Experience for Undergraduates (REU) - please indicate institution

- Summer research at government laboratory - please indicate the laboratory

- other _____

Were you an author or co-author on an academic publication or did you contribute to a professional publication in relation to your undergraduate experience?

- Yes
- No
- other _____

How many publications did you author/co-author?

- 1
- 2
- 3
- 4
- 5 or more

From the list below, please indicate how undergraduate research had a personal impact on you.
(check all that apply)

My research experience made me feel like I belonged to a community of scholars.

My ability to communicate improved as a result of my undergraduate research experience.

I learned how to persevere through obstacles and setbacks in my research

My research experience helped me clarify my career goals

My research experience made me more competitive for the job market, graduate school admission and/or admission to professional school

Work

Previous questions asked you about participation in a set of high impact educational practices. This next question will ask you about one specific Peak Educational Moment.

In a few sentences, describe a transformative learning experience, while a student at Auburn University, that helped shape the person you are today (a short experience that was both memorable and meaningful). Please be descriptive and note that the moment could take place anywhere (classroom, internship, study abroad, work, athletics, fraternity/sorority, student government, etc.).

The next set of questions will ask about any other on- or off-campus employment or work experience.

Did you work (part-time, full-time, work study) while an Undergraduate Student at Auburn University (check all that apply) ?

- Yes
- No
- Other _____

In which setting were you employed?

- On-campus
- Off-campus
- Other _____

How many hours per week did you work?

- Less than 5 hours
- 5-10 hours
- 10-15 horus
- 15-20 hours
- 20-25 hours
- more than 25 hours

CLA

The next set of questions will ask you to reflect on your time as a student in the College of Liberal Arts. Your participation is appreciated and serves as a crucial part of fostering the future success of the students in the College of Liberal Arts (CLA). Please answer the items to the best of your ability -- the remaining questions of this survey should take approximately 10 - 15 minutes.

Thank you and War Eagle!

As a student, you have gained familiarity with factual information, concepts, and theory related to your field of study. This knowledge may come through observation, experience, or study, and can be transferred from one person to another. ***Please describe concisely the most important and relevant knowledge you have gained while earning your Auburn Liberal Arts degree:***

During your college studies, you have been developing skills in your academic discipline (e.g., major). If knowledge is what you know, skills allow you to apply what you know to a particular situation or problem. ***Please describe concisely the most important and relevant skills you have developed while earning your Auburn Liberal Arts degree:***

Imagine you are in an interview (for a job or for graduate school). ***How can you use your Liberal Arts degree to help explain why you will be successful in your career?***

The following items ask how confident you feel in your ability to use the skills and knowledge gained through your liberal arts degree. Please read each item and respond according to how

you feel at this current moment. Answer as honestly as possible, responding on a scale of 1 (strongly disagree) to 5 (strongly agree).

	1- Strongly disagree	2-Disagree	3-Neither agree nor disagree	4-Agree	5-Strongly agree
I am confident that I can use the skills and knowledge gained from my liberal arts degree in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident that I can use the skills and knowledge gained from my liberal arts degree in job interviews.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident that I can use the skills and knowledge gained from my liberal arts degree for career success.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following items ask how much control you believe you have over your college career. Answer as honestly as possible, responding on a scale of 1 (strongly disagree) to 5 (strongly agree).

	1- Strongly Disagree	2-Disagree	3-Neither Agree nor Disagree	4-Agree	5-Strongly Agree
I have a great deal of control over my academic performance in my college courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The more effort I put into my academic courses, the better I do in them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No matter what I do, I can't seem to do well in my courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see myself as largely responsible for my performance throughout my college career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How well I do in my courses is often "luck of the draw."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is little I can do about my performance in college.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I do poorly in a course, it's usually because I haven't given it my best effort.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My grades are basically determined by things beyond my control, and there is little I can do to change that.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following items pertaining to your experiences with academic advising and related resources in the College of Liberal Arts.

Using the list below, please select your College of Liberal Arts Students Services (CLASS) advisor:

▼

The following items are asking you to rate your level of comfort with your CLA academic advisor. Please read each item carefully and respond according to how you feel at this current moment. Answer as honestly as possible, responding on a scale of 1 (strongly disagree) to 4 (strongly agree).

	1 - Strongly Disagree	2 - Disagree	3 - Agree	4 - Strongly Agree
I feel comfortable talking to my CLA Academic Advisor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My CLA Academic Advisor provides a caring, open atmosphere.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My CLA Academic Advisor listens to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable contacting my CLA Advisor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Aubie is a student at Auburn University and needs to complete the following tasks; unfortunately, Aubie does not know where to go. Please help Aubie by selecting the appropriate resource to complete each task (one selection per task).

Where should Aubie go in order to...

	Faculty Advisor or Departmental Advisor	Med Clinic or Student Counseling Services	AU Career Center or Academic Support	The Writing Center	Registrar's Office
...sign-up for tutoring with a study partner?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...first, to discuss specific course material and content as they relate to Aubie's major?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...take interests and personality assessments?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...get help reviewing and editing an academic paper?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...for help if he notices a friend who seems persistently sad and less engaged	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...obtain transient approval (i.e., official permission to take courses at another university)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following items pertaining to your experiences with Career events and related resources in the College of Liberal Arts.

Starting with your top choice, please identify three geographic areas (state and corresponding city/town) in which you most desire to work and/or live after graduation:

	Preferred State	City/Town
		(Text Entry)
1-Top Choice	▼ International (Outside of U.S.) ... Wyoming	
2-Second Choice	▼ International (Outside of U.S.) ... Wyoming	
3-Third Choice	▼ International (Outside of U.S.) ... Wyoming	

On average, how often did you participate in the following list of Career Service Events offered by the College of Liberal Arts?

	1 Never	2 Sometimes	3 About half the time	4 Most of the time	5 Always
Career Fairs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employer Information Sessions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Workshops	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career/Employer Class Presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One-on-One Career Advising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Among the following list of Career Service Events that you remember attending, please rank up to THREE (3) activities that you found most helpful to your preparation for post-graduation pursuits (e.g., employment, graduate school, etc.):

Top 3 Most Helpful Activities (1=Most Helpful)

- _____ Career Fairs
- _____ Employer Information Sessions
- _____ Workshops
- _____ Career/Employer Class Presentations
- _____ One-on-One Career Advising

Based on your top choice from the previous question, please briefly explain how this Career Service event/activity was most helpful in preparing you for your post-graduation pursuits:

Appendix C
IRB Approval

IRB Submission Memorandum

Revisions for protocol #21-071, Adams

Title: High-Impact Practices and the First Destination Outcomes of Liberal Arts Graduates

Researcher: Melissa Adams, mba0007@auburn.edu

The following revisions were made:

- Update the title Office of Institutional Research to the Office of Academic Assessment in questions 5, 6, 8, 9, and 10.
- Include a copy of the agreement letter from the Office of Academic Assessment for data use and de-identification – Appendix E.
- Move CITI documentation from Appendix E to Appendix F.

Auburn University Human Research Protection Program

EXEMPTION REVIEW APPLICATION

For information or help completing this form, contact: THE OFFICE OF RESEARCH COMPLIANCE
Phone: 334-844-5966 Email: IRBAdmin@auburn.edu

Submit completed application and supporting material as one attachment to IRBsubmit@auburn.edu.

1. PROJECT IDENTIFICATION

Today's Date 1/28/2021

a. Project Title High-Impact Practices and the First Destination Outcomes of Liberal Arts Graduates

b. Principal Investigator Melissa Adams Degree(s) M.Ed.
Rank/Title Ph.D. Graduate Student Department/School EFLT/College of Education
Phone Number 334-740-1522 AU Email mba0007@auburn.edu

Faculty Principal Investigator (required if PI is a student) Dr. Leslie Cordie
Title Associate Professor Department/School EFLT/College of Education
Phone Number 334-844-3089 AU Email lak0007@auburn.edu

Dept Head Dr. James Satterfield Department/School EFLT/College of Education
Phone Number 334-844-4460 AU Email jws0089@auburn.edu

c. Project Personnel (other PI) - Identify all individuals who will be involved with the conduct of the research and include their role on the project. Role may include design, recruitment, consent process, data collection, data analysis, and reporting. Attach a table if needed for additional personnel.

Personnel Name Dr. David Shannon Degree (s) Ph.D.
Rank/Title Human-Germany-Sherman Distinguished Professor Department/School EFLT/College of Education
Role Methodologist/Committee Member
AU affiliated? [X] YES [] NO If no, name of home institution
Plan for IRB approval for non-AU affiliated personnel?

Personnel Name Degree (s)
Rank/Title Department/School
Role
AU affiliated? [] YES [] NO If no, name of home institution
Plan for IRB approval for non-AU affiliated personnel?

Personnel Name Degree (s)
Rank/Title Department/School
Role
AU affiliated? [] YES [] NO If no, name of home institution
Plan for IRB approval for non-AU affiliated personnel?

d. Training - Have all Key Personnel completed CITI human subjects training (including elective modules related to this research) within the last 3 years? YES [X] NO []

Allow Space for the AU IRB Stamp

e. **Funding source** – Is this project funded by the investigator(s)? YES NO
 Is this project funded by AU? YES NO If YES, identify source _____
 Is this project funded by an external sponsor? YES No If YES, provide the name of the sponsor, type of sponsor (governmental, non-profit, corporate, other), and an identification number for the award.
 Name _____ Type _____ Grant # _____

f. List other AU IRB-approved research studies and/or IRB approvals from other institutions that are associated with this project.
 NA

2. Mark the category or categories below that describe the proposed research:

1. Research conducted in established or commonly accepted educational settings, involving normal educational practices. The research is not likely to adversely impact students' opportunity to learn or assessment of educators providing instruction. 104(d)(1)

2. Research only includes interactions involving educational tests, surveys, interviews, public observation if at least ONE of the following criteria. (The research includes data collection only; may include visual or auditory recording; may NOT include intervention and only includes interactions).
Mark the applicable sub-category below (i, ii, or iii). 104(d)(2)

(i) Recorded information cannot readily identify the participant (directly or indirectly/linked);
OR

- surveys and interviews: no children;
- educational tests or observation of public behavior: can only include children when investigators do not participate in activities being observed.

(ii) Any disclosures of responses outside would not reasonably place participant at risk; **OR**

(iii) Information is recorded with identifiers or code linked to identifiers and IRB conducts limited review; no children. **Requires limited review by the IRB.***

3. Research involving Benign Behavioral Interventions (BBI)** through verbal, written responses (including data entry or audiovisual recording) from adult subjects who prospectively agree and ONE of the following criteria is met. (This research does not include children and does not include medical interventions. Research cannot have deception unless the participant prospectively agrees that they will be unaware of or misled regarding the nature and purpose of the research)
Mark the applicable sub-category below (A, B, or C). 104(d)(3)(i)

(A) Recorded information cannot readily identify the subject (directly or indirectly/linked); **OR**

(B) Any disclosure of responses outside of the research would not reasonably place subject at risk; **OR**

(C) Information is recorded with identifiers and cannot have deception unless participant prospectively agrees. **Requires limited review by the IRB.***

4. Secondary research for which consent is not required: use of identifiable information or identifiable bio-specimen that have been or will be collected for some other 'primary' or 'initial' activity, if one of the following criteria is met. Allows retrospective and prospective secondary use. **Mark the applicable sub-category below (I, ii, iii, or iv).** 104(d)(4)

(i) Biospecimens or information are publically available;

(ii) Information recorded so subject cannot readily be identified, directly or indirectly/linked; investigator does not contact subjects and will not re-identify the subjects; **OR**

- (iii) Collection and analysis involving investigators use of identifiable health information when use is regulated by HIPAA “health care operations” or “research or “public health activities and purposes” (does not include biospecimens (only PHI and requires federal guidance on how to apply); OR
- (iv) Research information collected by or on behalf of federal government using government generated or collected information obtained for non-research activities.
- 5. Research and demonstration projects which are supported by a federal agency/department AND designed to study and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs. (must be posted on a federal web site). 104(d)(5) (must be posted on a federal web site)
- 6. Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture. The research does not involve prisoners as participants. 104(d)(6)

New exemption categories 7 and 8: Both categories 7 and 8 require Broad Consent. (Broad consent is a new type of informed consent provided under the Revised Common Rule pertaining to storage, maintenance, and secondary research with identifiable private information or identifiable biospecimens. Secondary research refers to research use of materials that are collected for either research studies distinct from the current secondary research proposal, or for materials that are collected for non-research purposes, such as materials that are left over from routine clinical diagnosis or treatments. Broad consent does not apply to research that collects information or biospecimens from individuals through direct interaction or intervention specifically for the purpose of the research.) **The Auburn University IRB has determined that as currently interpreted, Broad Consent is not feasible at Auburn and these 2 categories WILL NOT BE IMPLEMENTED at this time.**

***Limited IRB review** – the IRB Chairs or designated IRB reviewer reviews the protocol to ensure adequate provisions are in place to protect privacy and confidentiality.

****Category 3 – Benign Behavioral Interventions (BBI)** must be brief in duration, painless/harmless, not physically invasive, not likely to have a significant adverse lasting impact on participants, and it is unlikely participants will find the interventions offensive or embarrassing.

3. PROJECT SUMMARY

a. Does the study target any special populations? (Mark applicable)

- Minors (under 18 years of age) YES NO
- Pregnant women, fetuses, or any products of conception YES NO
- Prisoners or wards (unless incidental, not allowed for Exempt research) YES NO
- Temporarily or permanently impaired YES NO

b. Does the research pose more than minimal risk to participants? YES NO

Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or test. 42 CFR 46.102(i)

c. Does the study involve any of the following?

- Procedures subject to FDA regulations (drugs, devices, etc.) YES NO
- Use of school records of identifiable students or information from instructors about specific students. YES NO
- Protected health or medical information when there is a direct or Indirect link which could identify the participant. YES NO
- Collection of sensitive aspects of the participant's own behavior, such as illegal conduct, drug use, sexual behavior or alcohol use. YES NO
- Deception of participants YES NO

4. Briefly describe the proposed research, including purpose, participant population, recruitment process, consent process, research procedures and methodology.

Purpose: This research study seeks to better understand how participation in high-impact practices connects to the graduation outcomes of liberal arts students. This study further seeks to evaluate the quality of the high-impact practices, specifically internships, study abroad, and undergraduate research, and how this quality of participation may relate to first destination outcomes for students in the liberal arts.

Research Questions: This study aims to answer the following research questions:

- 1a. What is the relationship between participation in the high-impact practices of internship, study abroad, and undergraduate research and full-time employment for liberal arts students?
- 1b. Is there a relationship between the level of quality of participation in an internship and the first destination outcome of full-time employment for liberal arts students?
- 1c. Is there a relationship between the level of quality of participation in study abroad and the first destination outcome of full-time employment for liberal arts students?
- 1d. Is there a relationship between the level of quality of participation in undergraduate research and the first destination outcome of full-time employment for liberal arts students?

5. Waivers

Check any waivers that apply and describe how the project meets the criteria for the waiver. Provide the rationale for the waiver request.

- Waiver of Consent (Including existing de-identified data)**
- Waiver of Documentation of Consent (Use of Information Letter)**
- Waiver of Parental Permission**

All retrospective information will be de-identified.

I am requesting waiver of consent due to the administrative collection of the academic effectiveness data. The infrastructure hosting the FDS, CEES, and Banner were first created for administrative and/or institutional purposes, as such no formal explicit consent process existed for collection of this data, only tacit consent. This research will be using the data as a secondary data set, where individual responses have been de-identified by the Office of Academic Assessment (see letter of agreement in appendix E).

6. Describe how participants/data/specimens will be selected. If applicable, include gender, race, and ethnicity of the participant population.

Graduating undergraduate students participate in the FDS and CEES during the end of their last semester. Banner data is routinely collected when students enter Auburn University and as they complete their degrees at Auburn. This demographic data will be made available to the researchers.

Completion of these surveys (FDS, CEES) are two of the four pre-graduation expectations within the required zero-credit graduation course, UNIV 4AA0.

Any undergraduate student at Auburn University who intends to graduate will meet the criteria for taking the FDS and CEES. There will be no other requirements in selecting participants.

The data has only been available for the CEES since Fall 2019, thus data will be available from Fall 2019, SP 2020, and SU 2020 from the **Office of Academic Assessment**.

7. Does the research involve deception? YES NO If YES, please provide the rationale for deception and describe the debriefing process.

NA

8. Describe why none of the research procedures would cause a participant either physical or psychological discomfort or be perceived as discomfort above and beyond what the person would experience in daily life.

This secondary data set is de-identified by the Auburn University Office of Academic Assessment (see letter of agreement in appendix E).

9. Describe the provisions to maintain confidentiality of data, including collection, transmission, and storage.

The data will be stored electronically on Box, the cloud-based file system approved by Auburn University. The data will only be accessed by the personnel in this document as well as the Auburn University Office of Academic Assessment for purposes of de-identifying the data.

10. Describe the provisions included in the research to protect the privacy interests of participants (e.g., others will not overhear conversations with potential participants, individuals will not be publicly identified or embarrassed).

This secondary data set is de-identified by the Auburn University Office of Academic Assessment (see letter of agreement in appendix E).

11. Will the research involve interacting (communication or direct involvement) with participants?

YES NO If YES, describe the consent process and information to be presented to subjects. This includes identifying that the activities involve research; that participation is voluntary; describing the procedures to be performed; and the PI name and contact information.

NA

12. Additional Information and/or attachments.

In the space below, provide any additional information you believe may help the IRB review of the proposed research. If attachments are included, list the attachments below. Attachments may include recruitment materials, consent documents, site permissions, IRB approvals from other institutions, etc.

Appendix A: Canvas recruitment page from the UNIV 4AA0 course

Appendix B: Banner demographics

Appendix C: Complete list of the questions for the FDS

Appendix D: Complete list of the questions of the CEES for Liberal Arts students

Appendix E: Letter of agreement for data use and de-identification from the Office of Academic Assessment

Appendix F: CITI Certifications for all listed personnel in the above listed order

Principal Investigator's Signature Melissa Adams Digitally signed by Melissa Adams
Date: 2021.02.04 20:44:32 -06'00' Date 2/4/21

If PI is a student,
Faculty Principal Investigator's Signature Leslie A Cordie Digitally signed by Leslie A Cordie
Date: 2021.02.04 19:08:28 -04'00' Date 2/4/21

Department Head's Signature James Satterfield Digitally signed by James Satterfield
Date: 2021.02.05 13:25:19 -06'00' Date 2/5/21



AUBURN
Office of the Provost
Academic Assessment

February 10, 2021

Ms. Melissa Adams
302 Tichenor Hall
Auburn University, AL 36849

Dear Ms. Adams,

Thank you for your interest in accessing and using the Campus Engagement and Experience Survey (CEES) and First Destination Survey (FDS) data for your dissertation. As Director of the Office of Academic Assessment, I grant you permission to use the data for your dissertation. Prior to distributing the data, upon IRB approval, the Office of Academic Assessment will merge the independent survey datasets and deidentify all responses.

Sincerely,

Kathleen B. Boyd

Katie B. Boyd, PhD
Director
Office of Academic Assessment
Auburn University

Auburn University Human Research Protection Program

EXEMPTION REVIEW APPLICATION

For information or help completing this form, contact: THE OFFICE OF RESEARCH COMPLIANCE
Phone: 334-844-5966 Email: IRBAdmin@auburn.edu

Submit completed application and supporting material as one attachment to IRBsubmit@auburn.edu.

1. PROJECT IDENTIFICATION

Today's Date _____

a. Project Title _____

b. Principal Investigator _____ Degree(s) _____
Rank/Title _____ Department/School _____
Phone Number _____ AU Email _____

Faculty Principal Investigator (required if PI is a student) _____
Title _____ Department/School _____
Phone Number _____ AU Email _____

Dept Head _____ Department/School _____
Phone Number _____ AU Email _____

c. Project Personnel (other PI) – Identify all individuals who will be involved with the conduct of the research and include their role on the project. Role may include design, recruitment, consent process, data collection, data analysis, and reporting. Attach a table if needed for additional personnel.

Personnel Name _____ Degree (s) _____
Rank/Title _____ Department/School _____
Role _____
AU affiliated? [] YES [] NO If no, name of home institution _____
Plan for IRB approval for non-AU affiliated personnel? _____

Personnel Name _____ Degree (s) _____
Rank/Title _____ Department/School _____
Role _____
AU affiliated? [] YES [] NO If no, name of home institution _____
Plan for IRB approval for non-AU affiliated personnel? _____

Personnel Name _____ Degree (s) _____
Rank/Title _____ Department/School _____
Role _____
AU affiliated? [] YES [] NO If no, name of home institution _____
Plan for IRB approval for non-AU affiliated personnel? _____

d. Training – Have all Key Personnel completed CITI human subjects training (including elective modules related to this research) within the last 3 years? YES [] NO []

The Auburn University Institutional Review Board has approved this Document for use from 02/09/2021 to _____ Protocol # 21-071 EX 2102

e. Funding source – Is this project funded by the investigator(s)? YES NO
 Is this project funded by AU? YES NO If YES, identify source _____
 Is this project funded by an external sponsor? YES No If YES, provide the name of the sponsor, type of sponsor (governmental, non-profit, corporate, other), and an identification number for the award.
 Name _____ Type _____ Grant # _____

f. List other AU IRB-approved research studies and/or IRB approvals from other institutions that are associated with this project.

2. Mark the category or categories below that describe the proposed research:

- 1. Research conducted in established or commonly accepted educational settings, involving normal educational practices. The research is not likely to adversely impact students' opportunity to learn or assessment of educators providing instruction. 104(d)(1)
- 2. Research only includes interactions involving educational tests, surveys, interviews, public observation if at least ONE of the following criteria. (The research includes data collection only; may include visual or auditory recording; may NOT include intervention and only includes interactions).
Mark the applicable sub-category below (i, ii, or iii). 104(d)(2)
 - (i) Recorded information cannot readily identify the participant (directly or indirectly/linked);
OR
 - surveys and interviews: no children;
 - educational tests or observation of public behavior: can only include children when investigators do not participate in activities being observed.
 - (ii) Any disclosures of responses outside would not reasonably place participant at risk; **OR**
 - (iii) Information is recorded with identifiers or code linked to identifiers and IRB conducts limited review; no children. **Requires limited review by the IRB.***
- 3. Research involving Benign Behavioral Interventions (BBI)** through verbal, written responses (including data entry or audiovisual recording) from adult subjects who prospectively agree and ONE of the following criteria is met. (This research does not include children and does not include medical interventions. Research cannot have deception unless the participant prospectively agrees that they will be unaware of or misled regarding the nature and purpose of the research)
Mark the applicable sub-category below (A, B, or C). 104(d)(3)(i)
 - (A)** Recorded information cannot readily identify the subject (directly or indirectly/linked); **OR**
 - (B)** Any disclosure of responses outside of the research would not reasonably place subject at risk; **OR**
 - (C)** Information is recorded with identifiers and cannot have deception unless participant prospectively agrees. **Requires limited review by the IRB.***
- 4. Secondary research for which consent is not required: use of identifiable information or identifiable bio-specimen that have been or will be collected for some other 'primary' or 'initial' activity, if one of the following criteria is met. Allows retrospective and prospective secondary use. **Mark the applicable sub-category below (I, ii, iii, or iv).** 104(d)(4)
 - (i) Biospecimens or information are publically available;
 - (ii) Information recorded so subject cannot readily be identified, directly or indirectly/linked; investigator does not contact subjects and will not re-identify the subjects; **OR**

- (iii) Collection and analysis involving investigators use of identifiable health information when use is regulated by HIPAA “health care operations” or “research or “public health activities and purposes” (does not include biospecimens (only PHI and requires federal guidance on how to apply); OR
- (iv) Research information collected by or on behalf of federal government using government generated or collected information obtained for non-research activities.
- 5. Research and demonstration projects which are supported by a federal agency/department AND designed to study and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs. (must be posted on a federal web site). 104(d)(5) (must be posted on a federal web site)
- 6. Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture. The research does not involve prisoners as participants. 104(d)(6)

New exemption categories 7 and 8: Both categories 7 and 8 require Broad Consent. (Broad consent is a new type of informed consent provided under the Revised Common Rule pertaining to storage, maintenance, and secondary research with identifiable private information or identifiable biospecimens. Secondary research refers to research use of materials that are collected for either research studies distinct from the current secondary research proposal, or for materials that are collected for non-research purposes, such as materials that are left over from routine clinical diagnosis or treatments. Broad consent does not apply to research that collects information or biospecimens from individuals through direct interaction or intervention specifically for the purpose of the research.) **The Auburn University IRB has determined that as currently interpreted, Broad Consent is not feasible at Auburn and these 2 categories WILL NOT BE IMPLEMENTED at this time.**

***Limited IRB review – the IRB Chairs or designated IRB reviewer reviews the protocol to ensure adequate provisions are in place to protect privacy and confidentiality.**

****Category 3 – Benign Behavioral Interventions (BBI) must be brief in duration, painless/harmless, not physically invasive, not likely to have a significant adverse lasting impact on participants, and it is unlikely participants will find the interventions offensive or embarrassing.**

3. PROJECT SUMMARY

a. Does the study target any special populations? (Mark applicable)

- | | |
|---|--|
| Minors (under 18 years of age) | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| Pregnant women, fetuses, or any products of conception | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| Prisoners or wards (unless incidental, not allowed for Exempt research) | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| Temporarily or permanently impaired | <input type="checkbox"/> YES <input type="checkbox"/> NO |

b. Does the research pose more than minimal risk to participants? YES NO

Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or test. 42 CFR 46.102(i)

c. Does the study involve any of the following?

- Procedures subject to FDA regulations (drugs, devices, etc.) YES NO
- Use of school records of identifiable students or information from instructors about specific students. YES NO
- Protected health or medical information when there is a direct or Indirect link which could identify the participant. YES NO
- Collection of sensitive aspects of the participant's own behavior, such as illegal conduct, drug use, sexual behavior or alcohol use. YES NO
- Deception of participants YES NO

4. Briefly describe the proposed research, including purpose, participant population, recruitment process, consent process, research procedures and methodology.

5. Waivers

Check any waivers that apply and describe how the project meets the criteria for the waiver. Provide the rationale for the waiver request.

- Waiver of Consent (Including existing de-identified data)**
- Waiver of Documentation of Consent (Use of Information Letter)**
- Waiver of Parental Permission**

All retrospective information will be de-identified.

6. Describe how participants/data/specimens will be selected. If applicable, include gender, race, and ethnicity of the participant population.

7. Does the research involve deception? YES NO If YES, please provide the rationale for deception and describe the debriefing process.

8. Describe why none of the research procedures would cause a participant either physical or psychological discomfort or be perceived as discomfort above and beyond what the person would experience in daily life.

9. Describe the provisions to maintain confidentiality of data, including collection, transmission, and storage.

10. Describe the provisions included in the research to protect the privacy interests of participants (e.g., others will not overhear conversations with potential participants, individuals will not be publicly identified or embarrassed).

11. Will the research involve interacting (communication or direct involvement) with participants?
 YES NO If YES, describe the consent process and information to be presented to subjects.
This includes identifying that the activities involve research; that participation is voluntary; describing the procedures to be performed; and the PI name and contact information.

12. Additional Information and/or attachments.

In the space below, provide any additional information you believe may help the IRB review of the proposed research. If attachments are included, list the attachments below. Attachments may include recruitment materials, consent documents, site permissions, IRB approvals from other institutions, etc.

Appendix A: Canvas recruitment page from the UNIV 4AA0 course

Appendix B: Banner demographics

Appendix C: Complete list of the questions for the FDS

Appendix D: Complete list of the questions of the CEES for Liberal Arts students

Appendix E: Letter of agreement for data use and de-identification from the Office of Academic Assessment

Appendix F: CITI Certifications for all listed personnel in the above listed order

Principal Investigator's Signature Melissa Adams Digitally signed by Melissa Adams
Date: 2021.02.04 20:44:32 -06'00' Date 2/4/21

If PI is a student,
Faculty Principal Investigator's Signature Leslie A Cordie Digitally signed by Leslie A
Cordie
Date: 2021.02.04 19:08:28
-04'00' Date 2/4/21

Department Head's Signature James Satterfield Digitally signed by James
Satterfield
Date: 2021.02.05 13:25:19 -06'00' Date 2/5/21

Master Courses

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UNIV 4AA0: University Graduation

Edit

This page has changed since you started viewing it. [Reload](#)



Course Status

Unpublished Publish

- Import Existing Content
- Import from Commons
- Choose Home Page
- View Course Stream
- Course Setup Checklist
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- View Course Notifications

Coming Up

[View Calendar](#)

Nothing for the next week

UNIV 4AA0 - UNIVERSITY GRADUATION

<p>Student Core Outcomes Readiness Evaluation</p>  <p>Available from the 1st half of the semester</p>	<p>Diploma Application</p>  <p>Available from the 1st half of the semester</p>	<p>Campus Engagement and Experience Survey</p>  <p>Available from the last four weeks of the semester</p>	<p>First Destination Survey</p>  <p>Available from the last two weeks of the semester</p>
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Take the Campus Engagement and Experience Survey



Campus Engagement and Experience Survey

This survey asks you to share feedback on your learning experiences at Auburn (i.e. internships, co-op, study abroad, undergraduate research, ePortfolio Project, etc.), as well as your academic engagement with your college. This survey is only available in the last four weeks of the semester.

[CLICK HERE TO COMPLETE THE CAMPUS ENGAGEMENT AND EXPERIENCE SURVEY](#) 

or enter the following link into your browser: https://web.auburn.edu/audocshare/login.aspx?qualtrics=jfe/form/SV_4IUOrIzbzyk3kup 

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Take the First Destination Survey



First Destination Survey

This survey asks you to share your post-graduation plans. This survey is only available in the last two weeks of the semester. Once you have completed this activity, you will receive an email confirming the AT Hold has been removed from your account.

[CLICK HERE TO COMPLETE THE SURVEY](#)

Banner Demographics

- Term: Semester in which student graduated
- Gender
- Race
- Age at time of graduation
- Greek life participation
- First Generation: Yes or no descriptor if the student is the first in their family to graduate from an institution of higher education.
- SES Status or Expected Family Contribution from FAFSA
- Legacy: Determined by if anyone in a student's family attended Auburn University.
- Transfer status
- Major change indicator
- ACT score
- High school GPA
- Number of terms enrolled at AU
- Earned hours
- GPA
- College
- Major(s)
- Minor(s)
- Completion of and grade in the following courses:
 - UNIV 1050
 - UNIV 1100
 - UNIV 1150
 - LBAR 2010
 - LBAR 4010

FDS S19

First Destination Survey

This survey is designed to collect information about your plans after graduation. It should take less than five minutes. Completion of this survey is the final pre-graduation expectation associated with the AT Hold on your account.

If you have questions about this survey, please email the Office of Academic Assessment at assess@auburn.edu.

Please visit the [University Career Center website](#) for more information on their services and resources (or call (334) 844-4744).

Which of the following **BEST** describes your **PRIMARY** plans after graduation?

- I have accepted full-time employment or will be self-employed (on average 30 hours or more per week)
- I have accepted part-time employment or will be self-employed (on average less than 30 hours per week)
- I will participate in a volunteer or service program (e.g., Peace Corps, Teach for America, mission work)
- I will serve in the U.S. Military
- I will be enrolled in additional coursework (e.g., graduate/professional study)
- I will continue to seek employment
- I will continue to seek enrollment in additional coursework (e.g., graduate/professional study)
- Not seeking employment or continuing education at this time
- Other, please describe: _____

Which service branch are you joining?

- Air Force
- Army
- Coast Guard
- Navy
- Marine Corps

What is your rank?

Which of the following best describes your employment?

- Organization/Company
- Entrepreneur
- Freelancer
- Temporary/Contract work assignment
- Postgraduate internship or fellowship
- Other, please describe: _____

Please provide the following information about your employment:

- Company/Organization's Name: _____
- City: _____
- State: _____
- Your Job Title: _____
- Expected Annual Salary (e.g., 51000) _____
- Signing Bonus (e.g., 3500) _____
- Moving or Relocation Bonus (e.g., 2000) _____
- Is your position commission based? (Yes or No): _____

Please select an occupational group, sub-group, and occupational title for your job.

Occupational group:

Occupational sub-group:

Occupational title:

▼ Management Occupations ... Military Specific Occupations ~ Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members ~ Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members, All Other

How directly is your job related to your primary major?

- Directly related
- Indirectly related
- Not related

Please provide the following information about your organization:

- Organization Name: _____
- Assignment City: _____
- Assignment State: _____
- Assignment Country: _____
- Your Role or Title: _____

Please identify the institution in which you will be enrolled.

State

Institution

▼ Alabama ... Wyoming ~ University of Wyoming

If your institution is international or not listed above, please list it here.

Please identify the degree sought:

- Doctor of Audiology
- Doctor of Dental Surgery
- Doctor of Education
- Doctor of Medical Dentistry
- Doctor of Medicine
- Doctor of Ministry
- Doctor of Nursing Practice
- Doctor of Occupational Therapy
- Doctor of Optometry
- Doctor of Osteopathic Medicine
- Doctor of Pharmacy
- Doctor of Philosophy
- Doctor of Podiatric Medicine
- Doctor of Psychology
- Doctor of Social Work
- Doctor of Veterinary Medicine
- Educational Specialist
- Graduate Certificate
- Juris Doctor
- Master of Accountancy
- Master of Aerospace Engineering
- Master of Agriculture
- Master of Applied Mathematics
- Master of Aquaculture
- Master of Arts
- Master of Arts in College Teaching

- Master of Building Construction
- Master of Business Administration
- Master of Communication Disorders
- Master of Chemical Engineering
- Master of Civil Engineering
- Master of Communication
- Master of Community Planning
- Master of Computer Science and Engineering
- Master of Design Build
- Master of Education
- Master of Electrical Engineering
- Master of Finance
- Master of Fine Arts
- Master of French Studies
- Master of Forestry
- Master of Hispanic Studies
- Master of Integrated Design and Construction
- Master of Industrial Design
- Master of Industrial and Systems Engineering
- Master of Landscape Architecture
- Master of Mechanical Engineering
- Master of Manufacturing Systems Engineering
- Master of Management Information Systems
- Master of Materials Engineering
- Master of Music
- Master of Natural Resources
- Master of Probability and Statistics

- Master of Public Administration
- Master of Real Estate Development
- Master of Science
- Master of Software Engineering
- Master of Technical and Professional Communication
- Master of Zoological Studies
- Other

Please list your degree here:

Please identify the type of degree sought:

- Master's or Educational Specialist
- Professional Doctorate (DVM, PharmD., JD, MD, etc.)
- Research Doctorate (PhD, EdD)
- Additional undergraduate coursework to qualify for industry certification (e.g., CPA Exam)
- Other, please define: _____

Please select the broad field and major of your graduate or professional study.

Broad field of study

Major

▼ Agriculture ... Visual and Performing Arts ~ Woodwind Instruments.

If the field and major of your graduate or professional study are not listed above, please list them here:

Will you have a paid assistantship or fellowship?

- Yes
- No

Please indicate the primary reason(s) you are not seeking employment or continuing education at this time:

- Pursuing a gap year
- Raising a family
- Personal circumstances
- Experiential learning opportunity
- Other, please describe:

Will you have an international residence?

- Yes
- No

Please provide your contact information after graduation.

- Street address or P.O. box number:

- City or town: _____
- Province/State/County: _____
- Postal Code: _____
- Email address (the email account you will check most often, non-Auburn.edu):

- Phone number: _____
- LinkedIn URL (www.linkedin.com/in/_____):

Please provide your contact information after graduation.

Street address: _____

City: _____

State: _____

Zip code: _____

Email address (the email account you will check most often, non-Auburn.edu):

Phone number: _____

LinkedIn URL (www.linkedin.com/in/_____):

Additional Comments

Please add any additional comments you have below:

Campus Engagement and Experience Survey

For best results, please use a computer to complete this survey. This survey is designed to collect information about your experiences as an Auburn University student. It should take no more than 15 minutes. Completion of this survey is one of four pre-graduation expectations associated with your UNIV-4AA0 Graduation Course and the AT Hold on your account. If you have any questions about this survey, please email the Office of Academic Assessment at assess@auburn.edu.

War Eagle!

Which of the following activities did you participate in while an Auburn University student?

Please check all that apply.

- Co-op
 - ePortfolio
 - Internship
 - Study Abroad
 - Undergraduate Research
 - None
-

Study Abroad

The next set of questions will ask you about your study abroad experience. Please answer thoughtfully as you consider your experience(s) abroad.

Please identify the specific type of international experience that best describes your time abroad.

- Co-op abroad
- Internship/consulting project abroad
- Study Abroad
- Undergraduate Research Abroad
- other _____

From the list below, please choose the type of study abroad program that best describes your experience.

- AU Faculty led program involving medical shadowing or visits to companies (in my major)
- AU Faculty led program with classes at universities and/or institutions abroad
- AU Exchange program at university abroad
- AU Service learning project abroad on non-credit program
- Non-AU program abroad with another university or program for transfer credit
- other _____

Please indicate your agreement (1 - *strongly disagree* to 5 - *strongly agree*) to the following statements about **Study Abroad**. **Hover over the highlighted "?" for an additional description or example of the statement.**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
There were appropriately high performance expectations during the Study Abroad experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effort was required over an extended period of time. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I interacted with faculty and peers while studying abroad. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was exposed to people and/or settings that were unfamiliar to me. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was provided with constructive feedback during my study abroad experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There were structured opportunities to reflect on my learning. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There was real-world application to my study abroad experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I orally presented about my study abroad experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How long was your program abroad?

- 1-2 weeks
- 3-8 weeks
- one semester
- longer than one semester

What motivated you to study abroad? (check all that apply)

- I wanted to study abroad since before I was in High School
- A faculty member at Auburn University encouraged me to study abroad
- To learn about a new culture
- to complete projects abroad in my academic major or field
- to explore other subjects not in my major that I was interested in
- to complete a minor abroad
- to complete core curriculum courses abroad
- to enhance my language skills
- to enhance my communication skills
- to experience life in another climate
- to meet experts in my field by visiting companies, medical entities in my field, expand my global network
- to meet students at universities abroad and compare best practices in my field
- to meet people like me
- to meet people that were not like me
- to learn more about people not like me

When did you study abroad?

- freshmen or sophomore year

junior or senior year

Where did you study abroad (exclude travel off of program)?

Western Europe

Asia or Australia

Africa

Centra or South America

other _____

What did you get out of your study abroad program? (check all that apply)

added an experience that made my resume stand out

added a location that made my resume stand out

added courses from an international university that made my resume stand out

completed a minor or my major abroad

grew my soft skills (such as the ability to understand cultural differences or listen more)

learned a new language or improved my current language skills

gained confidence to handle unfamiliar situations

expanded global network of friends and/or contacts in my field

provided me with opportunities to take the initiative and to handle new experiences

learn more about myself (discovered my personal brand)

received academic credit

developed a global perspective

Please indicate, by selecting all that apply, the Exchange Programs in which you participated.

- Perth, Australia
- Aalen, Germany
- Karlsruhe, Germany
- Offenburg University, Germany
- Wurzburg-Schweinfurt, Germany
- Turin, Italy
- Tainan, Taiwan
- Other _____
- n/a

Please indicate, by selecting all that apply, the Faculty-led programs in which you participated.

- Beijing and Shangxi, China
- Wurzburg-Schweinfurt, Germany
- Florence, Italy
- Pamplona, Spain
- Other _____
- n/a

Please indicate, by selecting all that apply, the Service Programs in which you participated.

- EWB - Bolivia
- EWB - Rwanda
- Other _____
- n/a

Co-op

The next set of questions will ask you about your co-op experience(s). Please answer thoughtfully as you consider your experience(s) with co-op.

How many co-op employers did you have?

- 1
- 2 or more

You indicated that you participated in two or more co-op experiences

Please indicate your agreement (1 - *strongly disagree* to 5 - *strongly agree*) to the following statements about participating in an co-op. **Hover over the highlighted "?" for an additional description or example of the statement.**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
There were appropriately high performance expectations set for the co-op. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effort was required over an extended period of time. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I interacted with faculty and peers during and/or after my co-op. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was exposed to people and/or settings that were unfamiliar to me. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was provided with constructive feedback. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There were structured opportunities to reflect on my learning. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There was real-world application for the work I was completing during my co-op. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was asked to demonstrate the learning that occurred during my co-op. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How many work terms did you complete with this employer?

- 3
- 4
- 5

6 or more

When did you participate in your co-op (select all that apply)?

- Fall, Freshman Year
 - Spring, Freshman Year
 - Summer, following Freshman Year
 - Fall, Sophomore Year
 - Spring, Sophomore Year
 - Summer, following Sophomore Year
 - Fall, Junior Year
 - Spring, Junior Year
 - Summer, following Junior Year
 - Fall Senior Year
 - Spring Senior Year
 - Summer, following Senior Year
 - Other (e.g. Fall 5th Year)
-

Please provide the following information about your co-op employer:

Employer's Name: _____

Employer's Location (e.g., New York, NY):

Most frequent work location (e.g. Auburn, AL)

Your Position Title: _____

Ending Salary: approximate hourly rate (0 if unpaid)

Have you received an offer of employment from the organization with which you completed your co-op?

- Yes
- No

Have you accepted or plan to accept the offer of employment?

- Yes
- No

The College of Engineering has a few additional questions about your co-op experience. Please respond to the following questions about your most relevant co-op Experience.

How did you learn about this opportunity?

- Career fair
- Career Center / co-op Office
- Department / professor
- Family / friend
- Handshake
- Other _____

Rate the quality of this experience

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I had a good experience in this position	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My responsibilities were related to my field of study	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend this experience to a peer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Why would you recommend this experience to a peer?

Why would you not recommend this experience to a peer?

ePortfolio

The next set of questions will ask you about your experience(s) with ePortfolios. For the purpose of the following survey questions, please consider ePortfolios to be professional websites that include documentation of your skills and experiences accompanied by writing that provides the context of those documents so that others can understand why you have included those examples.

Please indicate your agreement (*1 - strongly disagree to 5 - strongly agree*) to the following statements about creating an **ePortfolio**. ***Hover over the highlighted "?" for an additional description or example of the statement.***

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The expectations for my performance in the ePortfolio were appropriately high. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creating my ePortfolio required a significant investment of effort across an extended period of time. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working on my ePortfolio created opportunities for meaningful interactions with faculty and/or peers. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creating my ePortfolio gave me an opportunity to communicate what I have learned about perspectives and cultures that are different from my own. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I received feedback from faculty and/or peers while creating my ePortfolio. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working on my ePortfolio included opportunities to reflect on my learning. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There are/were real-world applications for my ePortfolio. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I demonstrated the learning experienced while creating my ePortfolio by sharing it with others. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To complete my ePortfolio I (select all that apply)

- Worked on it in more than one course
- Worked on it in more than one semester
- Created different versions for different purposes
- Had opportunities to practice components (like making design choices or reflecting on my experiences) before assembling the final ePortfolio
- Got feedback from an industry representative or potential employer in my field

There were real-world applications for my ePortfolio because I used it to (select all that apply)

- demonstrate skills and experiences to potential employers
- demonstrate skills and experiences to graduate or professional schools
- record my experiences with another High Impact Practice (such as internships, study abroad, undergraduate research)
- other _____

Creating my ePortfolio gave me practical experience with (select all that apply)

- technology I might not otherwise have encountered
- making ethical choices
- visual literacy
- synthesizing my experiences
- explaining my experiences and choices to others
- considering audience and purpose
- selecting the best artifacts of my knowledge, skills and/or abilities from among many possibilities

Overall, was the experience of creating an ePortfolio meaningful to you?

Yes

No

Was completing an ePortfolio required in your major?

Yes

No

Did you participate in programs offered by Auburn's ePortfolio Project?

Yes

No

Internship

The next set of questions will ask you about your internship experience(s). Please answer thoughtfully as you consider your internship(s).

How many internships did you participate in?

- 1
- 2
- 3 or more

You indicated that you participated in more than one internship. Please respond to the next set of questions about your most relevant internship experience.

Please indicate your agreement (1 - *strongly disagree* to 5 - *strongly agree*) to the following statements about participating in an **Internship**. **Hover over the highlighted "?" for an additional description or example of the statement.**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
There were appropriately high performance expectations set for the Internship. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effort was required over an extended period of time. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I interacted with faculty and peers during and/or after my internship. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was exposed to people and/or settings that were unfamiliar to me. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was provided with constructive feedback. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There were structured opportunities to reflect on my learning. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There was real-world application for the work I was completing during my internship. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I orally presented about my internship experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please describe the amount of time you spent on your internship/work experience:

Approximate hours per week _____

Number of weeks _____

When did you participate in your internship (select all that apply)?

- Fall, Freshman Year
 - Spring, Freshman Year
 - Summer, following Freshman Year
 - Fall, Sophomore Year
 - Spring, Sophomore Year
 - Summer, following Sophomore Year
 - Fall, Junior Year
 - Spring, Junior Year
 - Summer, following Junior Year
 - Fall Senior Year
 - Spring Senior Year
 - Summer, following Senior Year
 - Other (e.g. Fall 5th Year)
-

Was your internship paid or for course credit (select all that apply)?

- paid
- credit
- neither paid nor for credit

Have you received an offer of employment from the organization with which you completed your Internship?

- yes
- no

Have you accepted or plan to accept the offer of employment?

- yes
- no

Please provide the following information about your employer:

- Employer's Name: _____
- Employer's Location (e.g. Auburn, AL):

- Work site location (e.g. Auburn, AL)

- Your Position Title: _____
- Salary: approximate hourly rate (0 if unpaid)

The College of Engineering has a few additional questions about your Internship experience. Please respond to the following questions about your most relevant Internship Experience.

How did you learn about this opportunity?

- Career fair
- Career Center / Co-op Office
- Department / professor
- Family / friend
- Handshake
- Other _____

Rate the quality of your most relevant internship experience.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I had a good experience in this position	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My responsibilities were related to my field of study	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend this experience to a peer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Why would you recommend this experience to a peer?

Why would you not recommend this experience to a peer?

Undergraduate Research

The next set of questions will ask you about your Undergraduate Research experience. Please answer thoughtfully as you consider your experience(s) with Undergraduate Research.

Please indicate your agreement (*1 - strongly disagree to 5 - strongly agree*) to the following statements about **Undergraduate Research**. ***Hover over the highlighted "?" for an additional description or example of the statement.***

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
There were appropriately high performance expectations set for my Undergraduate Research experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effort was required over an extended period of time. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I interacted with faculty and peers while participating in undergraduate research. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was exposed to people and/or settings that were unfamiliar to me. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was provided with constructive feedback. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There were structured opportunities to reflect on my learning. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There was real-world application to the work I was completing during my undergraduate research experience. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I orally presented about my undergraduate research experience and/or presented research completed while completing undergraduate research. ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Why did you participate in Undergraduate Research? (check all that apply)

- for credit in a course offered by my department or another department
- during an internship
- as part of an Undergraduate Research Fellowship
- as a volunteer researcher
- as a student employee
- Research Experience for Undergraduates (REU) - please indicate institution

- Summer research at government laboratory - please indicate the laboratory

- other _____

Were you an author or co-author on an academic publication or did you contribute to a professional publication in relation to your undergraduate experience?

- Yes
- No
- other _____

How many publications did you author/co-author?

- 1
- 2
- 3
- 4
- 5 or more

From the list below, please indicate how undergraduate research had a personal impact on you.
(check all that apply)

My research experience made me feel like I belonged to a community of scholars.

My ability to communicate improved as a result of my undergraduate research experience.

I learned how to persevere through obstacles and setbacks in my research

My research experience helped me clarify my career goals

My research experience made me more competitive for the job market, graduate school admission and/or admission to professional school

Work

Previous questions asked you about participation in a set of high impact educational practices. This next question will ask you about one specific Peak Educational Moment.

In a few sentences, describe a transformative learning experience, while a student at Auburn University, that helped shape the person you are today (a short experience that was both memorable and meaningful). Please be descriptive and note that the moment could take place anywhere (classroom, internship, study abroad, work, athletics, fraternity/sorority, student government, etc.).

The next set of questions will ask about any other on- or off-campus employment or work experience.

Did you work (part-time, full-time, work study) while an Undergraduate Student at Auburn University (check all that apply) ?

- Yes
- No
- Other _____

In which setting were you employed?

- On-campus
- Off-campus
- Other _____

How many hours per week did you work?

- Less than 5 hours
- 5-10 hours
- 10-15 horus
- 15-20 hours
- 20-25 hours
- more than 25 hours

CLA

The next set of questions will ask you to reflect on your time as a student in the College of Liberal Arts. Your participation is appreciated and serves as a crucial part of fostering the future success of the students in the College of Liberal Arts (CLA). Please answer the items to the best of your ability -- the remaining questions of this survey should take approximately 10 - 15 minutes.

Thank you and War Eagle!

As a student, you have gained familiarity with factual information, concepts, and theory related to your field of study. This knowledge may come through observation, experience, or study, and can be transferred from one person to another. ***Please describe concisely the most important and relevant knowledge you have gained while earning your Auburn Liberal Arts degree:***

During your college studies, you have been developing skills in your academic discipline (e.g., major). If knowledge is what you know, skills allow you to apply what you know to a particular situation or problem. ***Please describe concisely the most important and relevant skills you have developed while earning your Auburn Liberal Arts degree:***

Imagine you are in an interview (for a job or for graduate school). ***How can you use your Liberal Arts degree to help explain why you will be successful in your career?***

The following items ask how confident you feel in your ability to use the skills and knowledge gained through your liberal arts degree. Please read each item and respond according to how

you feel at this current moment. Answer as honestly as possible, responding on a scale of 1 (strongly disagree) to 5 (strongly agree).

	1- Strongly disagree	2-Disagree	3-Neither agree nor disagree	4-Agree	5-Strongly agree
I am confident that I can use the skills and knowledge gained from my liberal arts degree in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident that I can use the skills and knowledge gained from my liberal arts degree in job interviews.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident that I can use the skills and knowledge gained from my liberal arts degree for career success.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The following items ask how much control you believe you have over your college career. Answer as honestly as possible, responding on a scale of 1 (strongly disagree) to 5 (strongly agree).

	1- Strongly Disagree	2-Disagree	3-Neither Agree nor Disagree	4-Agree	5-Strongly Agree
I have a great deal of control over my academic performance in my college courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The more effort I put into my academic courses, the better I do in them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No matter what I do, I can't seem to do well in my courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I see myself as largely responsible for my performance throughout my college career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How well I do in my courses is often "luck of the draw."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is little I can do about my performance in college.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I do poorly in a course, it's usually because I haven't given it my best effort.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My grades are basically determined by things beyond my control, and there is little I can do to change that.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following items pertaining to your experiences with academic advising and related resources in the College of Liberal Arts.

Using the list below, please select your College of Liberal Arts Students Services (CLASS) advisor:

▼

The following items are asking you to rate your level of comfort with your CLA academic advisor. Please read each item carefully and respond according to how you feel at this current moment. Answer as honestly as possible, responding on a scale of 1 (strongly disagree) to 4 (strongly agree).

	1 - Strongly Disagree	2 - Disagree	3 - Agree	4 - Strongly Agree
I feel comfortable talking to my CLA Academic Advisor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My CLA Academic Advisor provides a caring, open atmosphere.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My CLA Academic Advisor listens to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable contacting my CLA Advisor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Aubie is a student at Auburn University and needs to complete the following tasks; unfortunately, Aubie does not know where to go. Please help Aubie by selecting the appropriate resource to complete each task (one selection per task).

Where should Aubie go in order to...

	Faculty Advisor or Departmental Advisor	Med Clinic or Student Counseling Services	AU Career Center or Academic Support	The Writing Center	Registrar's Office
...sign-up for tutoring with a study partner?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...first, to discuss specific course material and content as they relate to Aubie's major?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...take interests and personality assessments?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...get help reviewing and editing an academic paper?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...for help if he notices a friend who seems persistently sad and less engaged	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...obtain transient approval (i.e., official permission to take courses at another university)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please respond to the following items pertaining to your experiences with Career events and related resources in the College of Liberal Arts.

Starting with your top choice, please identify three geographic areas (state and corresponding city/town) in which you most desire to work and/or live after graduation:

	Preferred State	City/Town
		(Text Entry)
1-Top Choice	▼ International (Outside of U.S.) ... Wyoming	
2-Second Choice	▼ International (Outside of U.S.) ... Wyoming	
3-Third Choice	▼ International (Outside of U.S.) ... Wyoming	

On average, how often did you participate in the following list of Career Service Events offered by the College of Liberal Arts?

	1 Never	2 Sometimes	3 About half the time	4 Most of the time	5 Always
Career Fairs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employer Information Sessions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Workshops	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career/Employer Class Presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One-on-One Career Advising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Among the following list of Career Service Events that you remember attending, please rank up to THREE (3) activities that you found most helpful to your preparation for post-graduation pursuits (e.g., employment, graduate school, etc.):

Top 3 Most Helpful Activities (1=Most Helpful)

_____ Career Fairs

_____ Employer Information Sessions

_____ Workshops

_____ Career/Employer Class Presentations

_____ One-on-One Career Advising

Based on your top choice from the previous question, please briefly explain how this Career Service event/activity was most helpful in preparing you for your post-graduation pursuits:



AUBURN
Office of the Provost
Academic Assessment

February 10, 2021

Ms. Melissa Adams
302 Tichenor Hall
Auburn University, AL 36849

Dear Ms. Adams,

Thank you for your interest in accessing and using the Campus Engagement and Experience Survey (CEES) and First Destination Survey (FDS) data for your dissertation. As Director of the Office of Academic Assessment, I grant you permission to use the data for your dissertation. Prior to distributing the data, upon IRB approval, the Office of Academic Assessment will merge the independent survey datasets and deidentify all responses.

Sincerely,

Kathleen B. Boyd

Katie B. Boyd, PhD
Director
Office of Academic Assessment
Auburn University



Completion Date 22-Aug-2020
Expiration Date 22-Aug-2023
Record ID 31951615

This is to certify that:

Melissa Adams

Has completed the following CITI Program course:

IRB Additional Modules

(Curriculum Group)

Avoiding Group Harms - U.S. Research Perspectives

(Course Learner Group)

1 - Basic Course

(Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?w591381ea-1008-4241-8895-5e0a616bddc7-31951615



Completion Date 22-Aug-2020
Expiration Date 22-Aug-2023
Record ID 31951614

This is to certify that:

Melissa Adams

Has completed the following CITI Program course:

IRB Additional Modules
Conflicts of Interest in Research Involving Human Subjects
1 - Basic Course

(Curriculum Group)

(Course Learner Group)

(Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

Auburn University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?wb23ea7ac-b287-4fb2-b90b-2617e0e13c3b-31951614



Completion Date 22-Aug-2020
Expiration Date 22-Aug-2023
Record ID 31951617

This is to certify that:

Melissa Adams

Has completed the following CITI Program course:

IRB Additional Modules (Curriculum Group)
Cultural Competence in Research (Course Learner Group)
1 - Basic Course (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?wcb7033b3-80c3-4f23-8c30-7d3b6afed90e-31951617



Completion Date 22-Aug-2020
Expiration Date 22-Aug-2023
Record ID 31951618

This is to certify that:

Melissa Adams

Has completed the following CITI Program course:

IRB Additional Modules (Curriculum Group)
Defining Research with Human Subjects - SBE (Course Learner Group)
1 - Basic Course (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?w58b537dc-92cd-4175-b1bb-2a3f9e29e11e-31951618



Completion Date 22-Aug-2020
Expiration Date 22-Aug-2023
Record ID 37989983

This is to certify that:

Melissa Adams

Has completed the following CITI Program course:

IRB Additional Modules (Curriculum Group)
History and Ethical Principles - SBE (Course Learner Group)
1 - Basic Course (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?w18da4083-d73c-4cb2-9b17-5b3c37f5b068-37989983



Completion Date 22-Aug-2020
Expiration Date 22-Aug-2023
Record ID 31951616

This is to certify that:

Melissa Adams

Has completed the following CITI Program course:

IRB Additional Modules (Curriculum Group)
Hot Topics (Course Learner Group)
1 - Basic Course (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?w14d2627e-de6d-454a-aed2-71d5899ae2f0-31951616



Completion Date 22-Aug-2020
Expiration Date 22-Aug-2023
Record ID 31951611

This is to certify that:

Melissa Adams

Has completed the following CITI Program course:

IRB Additional Modules (Curriculum Group)
Internet Research - SBE (Course Learner Group)
1 - Basic Course (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

Auburn University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?wc366b6df-8f05-46e0-90e5-18cedfd34605-31951611



Completion Date 08-Jun-2019
Expiration Date 07-Jun-2022
Record ID 31951613

This is to certify that:

Melissa Adams

Has completed the following CITI Program course:

**IRB # 2 Social and Behavioral Emphasis - AU Personnel -
Basic/Refresher**

IRB # 2 Social and Behavioral Emphasis - AU Personnel

1 - Basic Course

Under requirements set by:

Auburn University

Not valid for renewal of certification
through CME. Do not use for
TransCelerate mutual recognition
(see Completion Report).

(Curriculum Group)

(Course Learner
Group)

(Stage)

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w1dc04ba5-37f0-4faa-a865-f59822cc7e2c-31951613



Completion Date 22-Aug-2020
Expiration Date 22-Aug-2023
Record ID 31951610

This is to certify that:

Melissa Adams

Has completed the following CITI Program course:

IRB Additional Modules (Curriculum Group)
Records-Based Research (Course Learner Group)
1 - Basic Course (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

Auburn University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w065bab9c-ffe3-479d-b2a5-db889702b997-31951610



Completion Date 07-Jan-2021
Expiration Date 07-Jan-2024
Record ID 38525694

This is to certify that:

Leslie Cordie

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

IRB Additional Modules

(Curriculum Group)

Internet Research - SBE

(Course Learner Group)

1 - Basic Course

(Stage)

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?w2a1ad32d-f33b-4eaf-b147-262ef87d6c48-38525694



Completion Date 04-Aug-2019
Expiration Date 03-Aug-2022
Record ID 31659673

This is to certify that:

David Shannon

Has completed the following CITI Program course:

IRB Additional Modules (Curriculum Group)
Internet Research - SBE (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?wbfbe4126-90c5-431e-a889-332fb9bf8d7e-31659673



Completion Date 04-Aug-2019
Expiration Date 03-Aug-2022
Record ID 31659674

This is to certify that:

David Shannon

Has completed the following CITI Program course:

IRB Additional Modules

(Curriculum Group)

Conflicts of Interest in Research Involving Human Subjects

(Course Learner Group)

1 - Basic Course

(Stage)

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?w91a401a1-9bc4-4a6f-abd3-67562076e3fe-31659674



Completion Date 04-Aug-2019
Expiration Date 03-Aug-2022
Record ID 31668226

This is to certify that:

David Shannon

Has completed the following CITI Program course:

IRB Additional Modules

(Curriculum Group)

Research in Public Elementary and Secondary Schools - SBE

(Course Learner Group)

1 - Basic Course

(Stage)

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?w56079031-9c7f-4b9c-afec-5e7fcf816dc7-31668226



Completion Date 04-Aug-2019
Expiration Date 03-Aug-2022
Record ID 31668227

This is to certify that:

David Shannon

Has completed the following CITI Program course:

IRB # 2 Social and Behavioral Emphasis - AU Personnel - Basic/Refresher (Curriculum Group)
IRB # 2 Social and Behavioral Emphasis - AU Personnel (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Auburn University



Verify at www.citiprogram.org/verify/?wb7c607d8-0048-48cf-9f7a-ccaa1b52f645-31668227